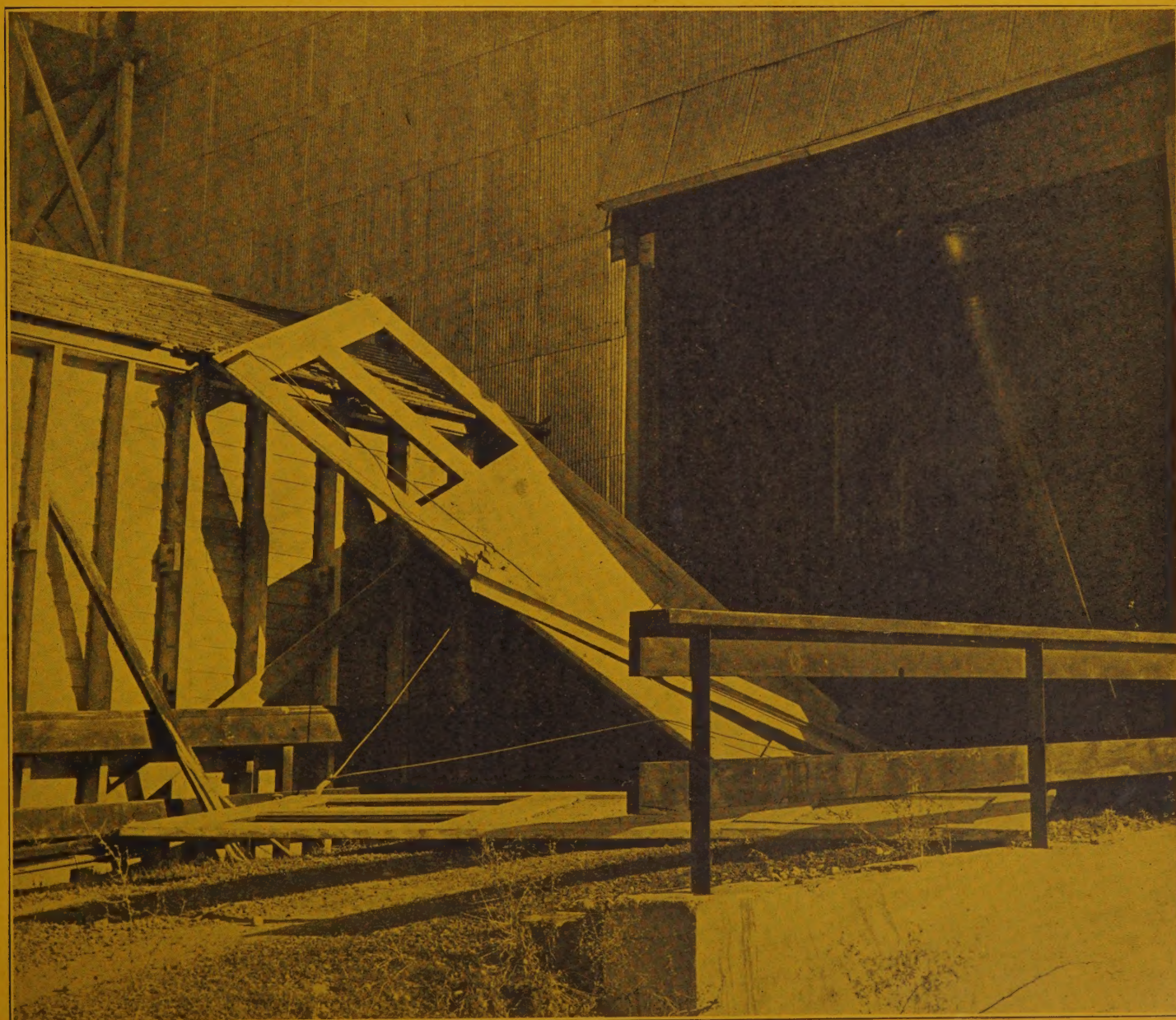


GRAIN & FEED JOURNALS

CONSOLIDATED

A Merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter



Thompson's Elevator at Blakeley (near Pendleton), Ore., Damaged by Dust Explosion.

[See page 57 for article]

Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

HAVING YOUR name in this directory will introduce you to many old and new firms during the year, whom you do not know or could not meet in any other way. Many new concerns are looking for connections, seeking an outlet or an inlet, possibly in your territory. It is certain that they turn to this recognized Directory, and act upon the suggestions it gives them. The cost is only \$10 per year.

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Russell Miller Milling Company
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We carry the following cipher codes in stock:

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GRAIN & FEED JOURNALS
 Consolidated

327 S. La Salle St. Chicago, Ill.

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MEMBERS OF ALL LEADING COMMODITY EXCHANGES

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Your Oat Growers**Can Get**

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*By Raising These New Varieties - -***TAMA, BOONE, VICLAND, VIKOTA, CONTROL or MARION**

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Continuous Buyers of Oats, Wheat, Corn, Barley

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See our "Elevator For Sale—Wanted" Department This Number

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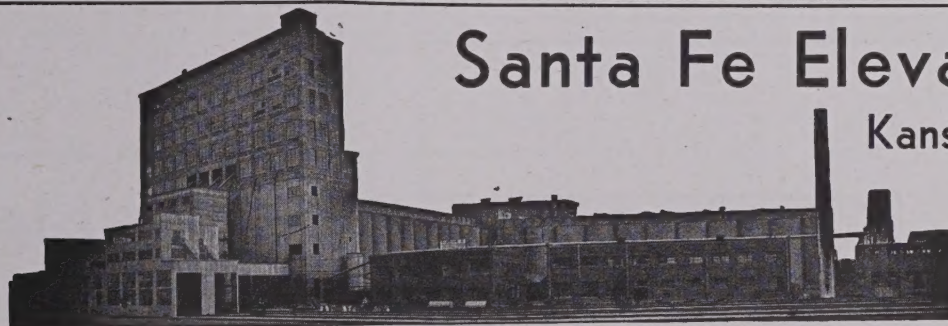
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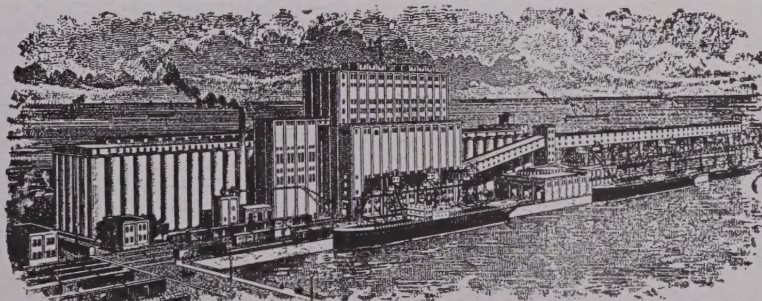
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By mentioning the Grain & Feed Journals of Chicago when writing its advertisers you help it to more efficient work in improving grain trade conditions.

Wanted and For Sale

The rate for advertisements in this department is 25 cents per type line each insertion

ELEVATORS FOR SALE

INDIANA ELEVATOR For Sale or Lease; good retail trade and all coal business you want. Address 91U20, Grain & Feed Journals, Chicago 4, Ill.

SOUTHERN MICHIGAN Elevator and feed mill for sale. Good retail and wholesale business in grain, feed and coal. Located at Athens, Mich. E. A. Wolfe, Shipshewana, Ind.

SOUTHERN NEBRASKA 8,000 bushel elevator with 22,000 bushel storage annex located at Bladen, Webster County, Neb. A real bargain. For further information write to Omaha Bank for Cooperatives, Farm Credit Building, Omaha 2, Nebr.

OKLAHOMA 43,000 bus. iron clad elevator for sale. Kewanee air dump; 5 bu. Fairbanks scale; 10 ton truck scale. All in running order; located on main line AT&SF. Reason for sale, can't stand the dust. E. A. Johnston Grain Co., Capron, Okla.

INDIANA—Elevator fully equipped with new, modern machinery for handling grain, seeds; custom grinding and mixing; grain storage 6,500 bus.; 20 ton sacked feed floor space; good farming community; good coal and tile business. Price \$7,500. Address 91Y1, Grain & Feed Journals, Chicago 4, Ill.

FOR SALE—Grain and bean elevator, located in the Thumb of Michigan, bean and dairy section. Feeds, builders' supplies, and modern coal yard. Price \$18,000 for plant and real estate. Will sell on terms if interested. Reason for sale poor health. Address 92A8, Grain & Feed Journals, Chicago 4, Ill.

OKLAHOMA—Elevator for sale. 15,000 bus. All new machinery; sheller; cleaner; truck lift; man lift; J. B. mill, 50 hp. motor; one ton batch mixer; molasses mixer and vat, 1½ cars capacity. Custom grinding over \$200 per month; retail sales over \$100 per day. Nice set-up, no fooling. Act quick. Address 91Z5, Grain & Feed Journals, Chicago 4, Ill.

ILLINOIS ELEVATOR, feed mill and feed business for sale. Coal business with equipment and trucks optional. Located in city of Kewanee, Henry County, Ill., 16,000 population; in midst of rich agricultural and stock raising community. Owner recently deceased and heirs desirous of disposing of property. Leo Cavanaugh, 1103 Jefferson Bldg., Peoria, Ill.

BUSINESS OPPORTUNITY

FOR SALE—Up and going flour, feed and grain business, enjoying best year of 36 continuous operation. Little competition in city of 50,000. 95% cash business. Best supply connections. An unusual opportunity for an unrestricted business. Can be bought with or without real estate. Address 92A6, Grain & Feed Journals, Chicago 4, Ill.

PARTNER WANTED

PARTNER WANTED in grain and coal bus.; only dealer; \$3,000 needed; may sell. Lock Box 381, Hamlin, Iowa.

SOYBEAN PLANT WANTED

SOYBEAN PLANT WANTED in Illinois, Iowa or Indiana, with a capacity of at least 150,000 tons of meal annually. Address 92B12, Grain & Feed Journals, Chicago 4, Ill.

HELP WANTED

WANTED—Two men, one as partner in country elevator; not afraid of work; one as bookkeeper with coal yard experience. Busenbark Grain Co., Crawfordsville, Ind.

WANTED—Good reliable millwright, steady employment, no lost time. Don't apply unless you are over the draft age. Give full particulars and state salary wanted. Address Hoosier, 92A2, Grain & Feed Journals, Chicago 4, Ill.

OATS WANTED

OATS WANTED

In 1,000 bushel truck lots. Quality Vicland or Boone oats suitable for seed. Write describing quality and price. H. J. Sterrenberg Grain Co., Crescent City, Ill.

INTRANSIT GRINDING

WANTED TO DO—Intransit grain grinding. Located on main Soo Line R.R. between Chicago and Minneapolis, or Duluth. Rounds Metcalf Mill and Elevator, Amherst, Wis.

SAMPLE ENVELOPES

SAMPLE ENVELOPES—SPEAR SAFETY—for mailing samples of grain, feed and seed. Made of heavy kraft paper, strong and durable; size 4½x7 inches, \$2.50 per hundred, or 500, \$10.00 plus postage. Seed size 3½x5¼ ins., per hundred \$2.00 plus postage. Grain & Feed Journals, 327 S. La Salle St., Chicago 4, Ill.

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Large stock of motors and generators, A.C. and D.C., new and rebuilt, at attractive prices. Special bargains in hammermill motors 25 to 100 hp., 1,200 to 3,600 rpm. Send us your inquiries. Expert repair service. V. M. NUSSBAUM & CO., Fort Wayne, Indiana

MOTORS—PUMPS—AIR COMPRESSORS; Guaranteed rebuilt electric motors, pumps, air compressors. Largest stock in Illinois outside of Chicago. Will take your equipment in trade. Also offer emergency motor repair and rewinding service. Distributors for Wagner motors, Goulds pumps, Sullivan and DeVilbiss air compressors. We offer free engineering advice on your problems. Write us without obligation. Ask for Bulletin No. 23. Rockford Power Machinery Co., 6th Ave. and 6th St., Rockford, Ill.

ENGINES FOR SALE

FOR SALE—Stationary Diesel engine, 25 hp., in first class condition. Farmers Union Elev. Ass'n, Aneta, N. D.

SCALES FOR SALE

FOR SALE—One 15 bu. Richardson automatic grain scale. Box 204, Kansas City 10, Mo.

FOR SALE—One ten ton Howe platform truck scale. Good condition. Write W. F. R., 121 Prenatt Street, Buffalo 10, N. Y.

Railroad Claim Books

(Duplicating) require little of your time for filing, and contain spaces for all the necessary information in the order which assure prompt attention by the claim agent. They help you to prove your claims and hasten your returns.

- A is for Loss of Weight in Transit Claims.
- B—Loss in Market Value Due to Delay in Transit.
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- D—Loss in Market Value Due to Delay in Furnishing Cars.
- E—Overcharge in Freight or Weight.

These claim blanks are printed on bond paper, well bound in book form, each book containing 100 machine perforated originals and 100 duplicates, a two-page index, instructions, a summary showing claims unpaid, and four sheets of carbon.

The five forms are assembled in three separate books, each of 200 leaves, weight 3 lbs. Price of each book \$2.25, plus postage.

- 411-A contains 100 sets all Form A.
- 411-E contains 100 sets all Form E.
- 411-5 contains 60 sets Form A, 10 Form B, 10 Form C, 10 Form D and 10 Form E.

Grain & Feed Journals

Consolidated

327 South La Salle St., Chicago 4, Ill.

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GRAIN & FEED JOURNALS CONSOLIDATED

327 So. La Salle St., Chicago

A merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter.

Gentlemen:—In order to keep us posted regarding what is going on in the grain and feed trades outside our office, please send us the *Grain & Feed Journals* twice each month. Enclosed find Two Dollars for one year.

Name of Firm.....

Capacity of Elevator

Post Office

State

MACHINES FOR SALE

FOR SALE—One new, large automatic seed dusting machine. Ed Coe Seeds, Ames, Iowa.

FEED MIXER—one-ton—floor level feed—has motor good as new. Write 91N9, Grain & Feed Journals, Chicago 4, Ill.

HAMMER MILL with 25-hp. motor and all attachments. Priced to sell. Write 91N10, Grain & Feed Journals, Chicago 4, Ill.

FOR SALE—Dings magnetic separator, three years old; in good condition. Farmers Co-operative Grain Co., Gordon, Nebr.

FEED MIXER for sale, has motor, and a late machine. Need space. Will sacrifice. Write 91N11, Grain & Feed Journals, Chicago 4, Ill.

FOR SALE

Used and new flour and feed machinery, including reels; rolls; purifiers; belting; hammer mills; mixers. Will buy some good used machinery. Write me when in the market. T. A. McWilliams, 1460 S. 2nd St., Louisville 8, Ky.

COLLAPSED—30,000 bu. grain elevator for sale at Lawton, N. Dak. Engine; office; scale; air dump; pumps; belting; Carter cleaner; coal shed; all in good condition. Will sell all or parts separate. James Gorecke, Lawton, N. Dak., or M. M. Van Osdal, Devils Lake, N. Dak.

FOR SALE—One 50 hp. 900 rpm. ball bearing Fairbanks-Morse motor; one Blue Streak 40; two Bauer Bros. 24" attrition mill direct connected to two 20 hp. motors, complete with starters, 220 volt, 3 phase, 60 cycle. Bargain for quick sale. D. E. Hughes Company, Hopkins, Mich.

FOR SALE—1,000 barrel flour mill and buildings, piecemeal or complete. Heavy duty 24 in. steel leg; conveyor belts; 300 hp. Foote gear reduction; carload capacity, steel hopper scale; Draver feeders; galvanized tanks; Niagara grade maker; Salius wetters; dust collectors, metal and cloth; small elevator legs; 9-30 Allis Type A stands; Universal bolters; purifiers; reels; motor 5-300 hp., 25 cycle, 440 volts; leather belting; Gump mill; bran duster; agitator, etc. Will furnish complete list. W. D. McGuire, 912 Humboldt Parkway, Buffalo Dist. 11, New York.

Shippers' Certificate of Weight

for use by shippers in advising receivers of the weight and grade of grain loaded into a car. Especially adapted for supporting claims for Loss of Weight in Transit.

Each certificate gives: "Kind of scale used; Station; Car Number and Initials; Shipper's Name;—lbs. equal to—bus. of No. —; Date scales were tested and by whom; car thoroughly examined and found to be in good condition and properly sealed when delivered to the

R. R. Co; Seal Record, name and number, sides and ends; marked capacity of car; date; name of the weigher." On back is a form for recording the weight of each draught loaded.

Printed and numbered in duplicate. Originals on Goldenrod Bond, duplicates on tough pink manila in two colors of ink. Well bound with heavy hinged pressboard covers. 75 originals, 75 duplicates and four sheets of carbon paper. Size 4½ x 9¾ inches. Weight 11 ozs. Price \$1.05, plus postage. Order No. 89 SWC.

Grain & Feed Journals
CONSOLIDATED

327 So. La Salle St., Chicago 4, Ill.

MACHINES FOR SALE

FOR SALE—One Mott clover huller. Farmers Co-op. Grain & Seed Ass'n, Thief River Falls, Minn.

FOR SALE—Used hammer mill with motor; corn cracker, large capacity. H. H. Hussey, Box 162, Albert Lea, Minn.

BLUE STREAK Hammermill for sale, with all attachments, and 25 hp. motor in good condition. Can be seen operating. Schuyler Milling Company, Schuyler, Nebr.

FOR SALE—One 24" Diamond Huller, ball bearing attrition mill, complete with drives and belts. Also 60 hp. Advance Rumley engine. All in good running condition. J. Roach Sons, Inc., Plainfield, Iowa.

For SALE—3 water wheels, 18"-24"-30". One eight section Wolf ball bearing level sifter; one ton size Sidney quick mix feed mixer; two No. 3 Dunlap reels; one No. 6 plansifter, 10 sections; several other machines. T. A. McWilliams, 1460 So. 2nd St., Louisville 8, Ky.

MACHINES FOR SALE

CORN CUTTER & Grader—has motor—used very little. 91N8, Grain & Feed Jnls., Chicago.

FOR SALE—No. 40 Blue Streak, no motors; one 60 hp. 3W22 Gruendler with motors. D. E. Hughes Co., Hopkins, Mich.

FOR SALE—Two complete pellet machines with feeder and mixer; screw type; good condition. Jamieson Machine Co., St. Joseph, Mo.

FOR SALE—One three high Noye roller mill with twelve high caliper rolls; mill rebuilt in perfect condition. One 325 bu. hopper scale; one 100 bu. Both scales complete with steel hoppers. Cliff Buzick, Bardstown, Ky.

MACHINES WANTED

WANTED—A one or two ton mixer; upright or horizontal. W. H. Cramer Construction Co., North Platte, Nebr.

WANTED—Used elevator casings, good condition; inside dimensions, 15¼"x48"; one 31 ft. center and the other 37 ft. center, including heads and boots. Bird & Son, Aero Drive, Shreveport, La.

The Last Word in Clark's Direct Reduction Grain Tables

is a combination of our popular 7-card set, Form 3275 Spiral and our new Truck Loads to Bushels, Form 23,090 Spiral which reduce by 10 pound breaks any weight of grain from 600 to 23,090 pounds to bushels of 32, 48, 56, 60, 70 and 75 lbs.

Carefully printed from large clear type, using jet black ink, showing the bushels directly beside the weight of grain reduced and distinctly separated by rules and spaces so as to prevent errors in reading. The most practical, the most helpful grain reduction tables ever published. Their use will return their cost every day of the busy season in labor and time saved and errors prevented.

The spiral binding keeps the cards flat, and in regular sequence, and prevents the exposure of more than one grain at a time so it is easy to keep wide open the tables for the grain being received.

Both sets of tables are printed on heavy six ply tough check of durable quality, 11x13 inches with marginal index. Shipping weight, 3 lbs. You can get both sets described below for \$2.85, plus postage.

Direct Reduction Grain Tables

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32 lbs. per bushel—OATS

Wt.	Wt.	Wt.	Wt.	Wt.	Wt.	Wt.	Wt.	Wt.	Wt.
600	610	620	630	640	650	660	670	680	690
700	710	720	730	740	750	760	770	780	790
800	810	820	830	840	850	860	870	880	890
900	910	920	930	940	950	960	970	980	990
1000	1010	1020	1030	1040	1050	1060	1070	1080	1090
1100	1110	1120	1130	1140	1150	1160	1170	1180	1190
1200	1210	1220	1230	1240	1250	1260	1270	1280	1290
1300	1310	1320	1330	1340	1350	1360	1370	1380	1390
1400	1410	1420	1430	1440	1450	1460	1470	1480	1490
1500	1510	1520	1530	1540	1550	1560	1570	1580	1590
1600	1610	1620	1630	1640	1650	1660	1670	1680	1690
1700	1710	1720	1730	1740	1750	1760	1770	1780	1790
1800	1810	1820	1830	1840	1850	1860	1870	1880	1890
1900	1910	1920	1930	1940	1950	1960	1970	1980	1990
2000	2010	2020	2030	2040	2050	2060	2070	2080	2090
2100	2110	2120	2130	2140	2150	2160	2170	2180	2190
2200	2210	2220	2230	2240	2250	2260	2270	2280	2290
2300	2310	2320	2330	2340	2350	2360	2370	2380	2390
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3800	3810	3820	3830	3840	3850	3860	3870	3880	3890
3900	3910	3920	3930	3940	3950	3960	3970	3980	3990
4000	4010	4020	4030	4040	4050	4060	4070	4080	4090
4100	4110	4120	4130	4140	4150	4160	4170	4180	4190
4200	4210	4220	4230	4240	4250	4260	4270	4280	4290
4300	4310	4320	4330	4340	4350	4360	4370	4380	4390
4400	4410	4420	4430	4440	4450	4460	4470	4480	4490
4500	4510	4520	4530	4540	4550	4560	4570	4580	4590
4600	4610	4620	4630	4640	4650	4660	4670	4680	4690
4700	4710	4720	4730	4740	4750	4760	4770	4780	4790
4800	4810	4820	4830	4840	4850	4860	4870	4880	4890
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5100	5110	5120	5130	5140	5150	5160	5170	5180	5190
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7600	7610	7620	7630	7640	7650	7660	7670	7680	7690
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9500	9510	9520	9530	9540	9550	9560	9570	9580	9590
9600	9610	9620	9630	9640	9650	9660	9670	9680	9690
9700	9710	9720	9730	9740	9750	9760	9770	9780	9790
9800	9810	9820	9830	9840	9850	9860	9870	9880	9890
9900	9910	9920	9930	9940	9950	9960	9970	9980	9990
10000	10010	10020	10030	10040	10050	10060	10070	10080	10090

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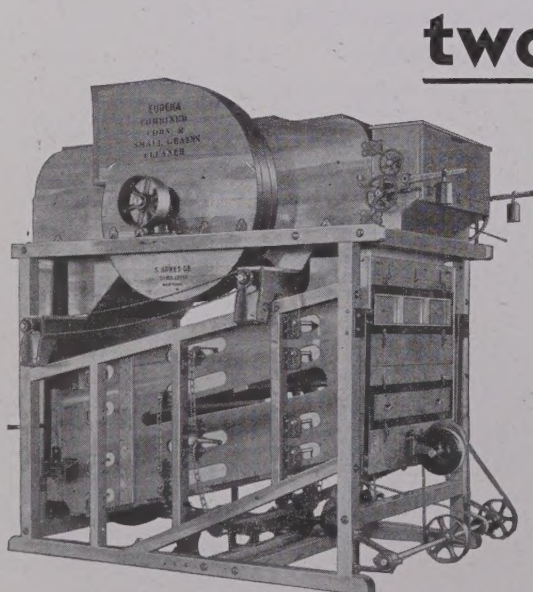
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Ship us your wheat, corn and oats:

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GRAIN & FEED JOURNALS

CONSOLIDATED
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327 S. La Salle St., Chicago 4, Ill., U. S. A.
Charles S. Clark, Manager

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Established 1898

AMERICAN ELEVATOR &
GRAIN TRADE
Established 1882

THE GRAIN WORLD
Established 1928

PRICE CURRENT - GRAIN REPORTER
Established 1844

Published on the second and fourth Wednesdays of each month in the interests of better business methods for progressive wholesale dealers in grain, feed and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improving of grain, feeds and seeds.

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THE ADVERTISING value of the Grain & Feed Journals Consolidated as a medium for reaching progressive grain, feed and field seed dealers and elevator operators is unquestioned.

Advertisements of meritorious grain elevator and feed grinding machinery and of responsible firms who seek to serve grain, feed and field seed dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain, feed and field seed trades, news items, reports on crops, grain movements, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaking grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. The service is free.

CHICAGO 4, ILL., JANUARY 26, 1944

SO FAR THIS MONTH the fire fiend has not been very active. Only nine fires have been reported and but two resulted in the destructions of grain handling plants.

COUNTRY SHIPPERS would make it easier for rail carriers to provide serviceable grain doors if they would refrain from using spikes or a dozen large nails to anchor door in place. The pressure of the grain generally will suffice to hold door tight against door sills; a couple of ten penny nails should prevent door sliding sideways.

CONGRESS HAS BEEN threatening to discontinue all subsidies so as to put an end to the long established practice of large subsidies for the encouragement of food producers. A subsidy of \$2.50 per ton for the encouragement of the sugar beet growers did not seem sufficient so the C.C.C. shelled out another \$1.50 a ton, while the processor paid \$7.50 a ton for the beets. A general demand of the opponents of all subsidies is that a subsidy be made uniform for all or discontinued entirely.

SOYBEAN PANCAKE FLOUR and soybean bread flour now being made by different enterprising millers is bound to win a place for itself because of the soybean's high protein content without so much fat producing starch.

A TRICKY TRUCKER who gave a rubber check to a Nebraska elevator operator for corn sold him has made good on the check. The vigilance of the sheriff and other lovers of square dealing co-operated successfully.

THREE GRAIN OFFICES are reported in this number as having been desecrated by midnight marauders. While the losses have not been heavy, the irritation of after dark callers is sufficient to make everybody lock all openings tight.

FIVE ACCIDENTS are reported in our news columns this number, three of them in Illinois. All could have been prevented through greater vigilance, and greater care on the part of the workers injured. Some day moving machinery will be safeguarded so as to prevent most of the unnecessary sacrifice of limbs and lives.

FARM organizations, aside from the Farmers Union, are not sympathetic with administration policies as formerly. Farmers are indicating a desire to produce and sell without government control or subsidy, to take their chance in the open market. This trend would divorce government agencies from unfair competition with private enterprise in handling the crops.

BURSTING BINS have been responsible for heavy spills of grain on account of weak walls in Nebraska and one other state according to reports in this number. One workman slid out of the hole and down fifty feet without skis and without injury. Hastily built and poorly constructed products of old time barn builders cannot be expected to sustain heavy loads of damp grain.

WAITING FOR the local train crews to spot cars for loading may have answered the needs of country elevator operators in the days of 28,000 cap. cars, but the large capacity cars in current use today make it necessary for cars to be spotted and their loading to be started immediately in order to make room for more of the daily receipts in the vacated bins. So, naturally country elevators are installing more and more car pullers so that their operations will not be dependent upon the fickle, slow-moving train crews. Delay in shipping increases interest charges on bank loans unnecessarily. With the independent car mover the shipper can act quickly and get quick action in loading and thereby increase the usefulness of box cars and expedite the filling of his contract to make prompt shipment.

TESTING FROZEN SAMPLES of corn cannot give dependable results and it is very likely to result in differences and disputes.

SOME OF THE SHIPPERS BOARDS are urgently appealing to all grain receivers to salvage every grain door possible, and warning that large spikes are not necessary to prevent the shifting of grain doors. The use of spikes contributes largely to the destruction of the grain doors at the end of the first trip.

SOME OF THE GOVERNMENT'S hemp mills are to be closed partially because of the difficulty experienced in obtaining all of the seed needed, and partly because of some improvement in the import trade of materials for making rope and cordage from the Dutch East Indies. Only 14 of the 42 mills will be continued.

DISCONTINUING NOTIFYING AND ADVISING shipments made, as ordered by the I.C.C. will surely shrink the merchandising activities of many brokers who use the wires to sell grain after it has started to the holding point. This method of expediting the movement of surplus grain not only promotes the marketing of grain but prevents delay and back hauling.

THE WAR LABOR BOARD has filed so many suits against processors and handlers of grain, it behooves everyone to study the regulations of the department and keep a complete and accurate record of each employee with the time actually worked and the money actually paid. Increasing wages and salaries without consulting government officials is likely to embroil the employer in trouble.

THE COUNTRY ELEVATORMAN who installs a 30-ton truck scale and then charges a trucker ten cents a load for weighing is just giving away his operating capital. If a farmer wants to sell to tricky truckers then let him provide his own scale, or, at least, pay half of the \$1.00 weighing fee, the trucker should be perfectly willing to pay the other half. The investment in modern weighing facilities, combined with the time of the weighman, fully justifies a minimum fee of one dollar.

ALTHOUGH THE CEILING PRICE fixed by the O.P.A. for grains and field seeds may be considered excessive the producers are still wishing and hoping for higher prices and the fly-by-night truckers will continue to ignore the ceiling and pay a price which will get them the grain demanded by unknown feeders in distant districts. Elevator operators of surplus corn sections have suffered excessive fines for trying to help feeders keep their herds and flocks alive, but truckers continue an active business.

When You Smell Smoke Search for the Cause

Grain elevator operators who tolerate smoking in their plants will be deeply interested in the experience of an elevator operator at Townsend, Mont., who smelled smoke and was so certain something was burning he searched the plant from top to bottom without finding any source of the smoke.

The following morning on opening the elevator the same offensive warning prevailed, and again the operator searched straining his eyes and patience looking for the source of that stink, but found nothing.

On opening the elevator the third day when the wind was in the north, the odor of smoke was stronger than ever, the impatient manager swore out loud, and again began a search for the source of that smoke. Finally on a beam over the driveway entrance his perseverance was rewarded with finding the offending pile of crusted dust and dirt. Removing the smouldering material the patient, persistent elevator operator found the half burned stub of a cigarette which had started a smoldering fire three days before. The wall adjoining the burning material was badly charred and just beginning to blaze when found.

This slow burning refuse is a warning companion piece for the Manitoba elevator boot bearing which set fire to the leg casing and came near to causing the complete destruction of the elevator, which has long borne convincing evidence of the necessity of patiently searching for all sources of fire odors.

A New Job for Local Feed Dealers

Feed merchants who would prefer to be let alone to devote their energies to their regular business have had a new duty thrust upon them.

It seemed enough to keep abreast of the ceiling price regulations, and more than enough to figure out the income tax statement; but now in his own interest the dealer must join in the division of protein feed meals in his county.

Each state gets a monthly tonnage of linseed and soybean oil meal. Allotments vary between counties, according to need. The county A.A.A. board makes allocation to dealers. If a county has 20 feed dealers and the county gets 40 tons, each dealer gets 2 tons.

It is in the distribution of this individual tonnage that the dealer gets a new job; and fortunately the National Feed Industry Council has made helpful suggestions on the discharge of the new duty.

Disregarding the fact that protein feeds will go farthest when mixed, the government agency desires the feed dealer to permit the farmer to buy the

straight feed. The A.A.A. has asked the dealers not to use the soybean meal in mixed feeds. On this point, to steer the farmer in the right direction, the dealer should quote the government agency which stated "All protein ingredients, whether animal, marine or vegetable, should be mixed with other feedstuffs to obtain maximum results and more complete utilization of the protein and should not be fed separately."

This is the time for the dealer who has kept informed on correct proportions in rations to profit by that study by offering suggestions to the feeder on the proper use of soybean meal. The farmer buying the meal can order it mixed with feed grown by himself or with ingredients purchased from the dealer, thus patriotically furthering the government effort to economize protein feeds.

In the order of necessitous distribution poultry comes first, then young pigs, dairy cows, large hogs and finally beef cattle.

Conventions the Washington Bureau's Real Opportunity

All grain trade associations are enjoying large attendance at every meeting, and, naturally, all of the grain trade organizations are swelling their membership to record figures.

Dealers everywhere seem to have a keener appreciation of the value of working with the other fellows in helping to promote common interests. Naturally this progressive attitude is helping all of the associations to greater and more lasting benefits for individual members.

In the interest of a clearer understanding of exactly what is wanted by the Washington bureau managers, it will help them to attain their desired end, and insure more complete co-operation with all members of the trade in maintaining ceiling prices and observing regulations and requirements.

The fact is that the efforts of the O.D.T. to discourage association meetings is in direct conflict with the aims and purposes of the A.A.A., the C.C.C. and all other bureaus seeking to obtain uniform practices in the grain and feed trade, and thereby to obtain perfect co-operation of the grain trade in carrying out the wishes of the Washington Bureau managers.

Even the O.D.T. can obtain more satisfactory observances of its transportation regulations if more of its well posted assistants would attend conventions of the grain and feed shippers and explain its rules and purpose. It might be that members of the trade would give them some practical suggestions for the successful attainment of the O.D.T.'s aims without interfering with any established trade practice.

The Hazards of Dust and Dirt

Every grain elevator operator of experience knows full well that the toleration of dust and dirt around every dark corner and crevice of a grain handling plant provides a real paradise for grain infesting insects of every variety. A visit to many plants will convince the observing operator that is the purpose of every careless member of the elevator crew.

Not only does dirt and rubbish invite rodents but they also increase immeasurably the dust explosion hazard. No elevator operator will voluntarily help to promote favorably living conditions for rodents and grain infesting insects, but when it comes to the dust explosion hazard that involves his own personal safety, and it should be an easy matter for him to realize that he is inviting disaster by tolerating dirt and dust.

Ceiling Prices Shrink C.C.C. Loans

The O.P.A. has fixed ceiling prices on so many farm commodities and now promises to fix other prices on oats, barley and sorghums, that may show disappointing reductions from prevailing prices. This uncertainty is evidently discouraging farmers speculating on their products by borrowing money from the C.C.C. and holding for an advance.

The C.C.C. through its report on corn loans as of Jan. 15, 1944, showed that it had made 2,591 loans on 3,074,845 bus. of 1943 corn. On the same day in 1943, the C.C.C. had made 22,125 loans on 26,986,777 bus. of corn in the amount of \$20,835,995.

On January 15th this year the C.C.C. had completed 120,797 loans on 128,958,013 bus. of 1943 wheat. This compares with 528,183 loans completed on 399,682,481 bus. of wheat Jan. 15, 1942.

With fixed prices farmers cannot expect to gain anything by holding so there is no occasion for their borrowing money from anybody and none can expect to profit by a 3% loan on their own products. How anyone can expect to pay storage on wheat and borrow money on the stored wheat to meet their current expenses is past understanding, but loans completed on wheat stored in warehouses Jan. 15th, 1944, totaled 84,252,592 bus. The conclusion is that the wheat growers having cultivated the habit of borrowing on warehoused wheat overlooked the fact that they cannot expect to derive a profit by holding their wheat. The number of loans completed on Jan. 15th, 1943, was more than four times the number of loans on wheat in force Jan. 15th, 1944. However, it will not be long until the farmers awake, pay off their loans and stop the expensive speculation which cannot bring them any profit.

RECENT MEETINGS of representatives of the grain trade with the OPA officials in the hope of determining what would be an equitable ceiling for oats, barley and grain sorghums are still discussing, but, doubtless, permanent ceilings will soon be established and they may be at lower levels.

Respect Ceiling Orders

In its praiseworthy effort to allow the various components of the established grain handling industry to function normally the O.P.A. has specified mark-ups in the price that may be added by handlers performing the specified services.

It is practically impossible to write a ceiling order that will preserve trade units without leaving loopholes where a chiseler can allow himself to duplicate a charge or to add something for a service not actually performed.

Keenly alive to this situation the National Grain Trade Council has urged that questionable practices be nipped in the bud by prompt and vigorous prosecution of the offenders.

Fierce competition in the grain trade has schooled some merchants into looking for an opportunity to circumvent rules of grain exchanges and tariffs of railroad companies. It has become a habit that must be laid aside as to the wheat and corn ceilings.

The trade must police itself. The few who may ignorantly take short cuts might be penalized properly by the grain exchanges or the national and state associations. "Un-commercial conduct" and "Practices detrimental to the trade" are peculiarly within the scope of business conduct committees. The organized trade can be trusted to define such practices fairly where government cannot.

Where carlots of corn or wheat are traded between country warehousemen, terminal merchandisers or others engaging in distribution merely for the purpose of markups and not thru any necessity of grain distribution, the practice is condemned by trade leaders.

It is rumored that some country warehousemen have passed carlots of grain between themselves merely to get an added markup before the grain left the interior point. Where such "trades" are made between persons by agreement in order to add markups, either in the country or terminals, it is condemned by the trade and O.P.A. plans to start enforcement against such parties under the evasion clauses.

Certain practices, reported to O.P.A. are held to be clear violations or evasions, subject to prosecution. Among these practices probably are the following: (1) Purchases of wheat on a protein premium basis but with no protein inspection being called, and where wheat delivered has a protein lower than the purchase price would indicate; (2) Shipment of grain by "shipper's weights and grades," where such shipments result in a selling price higher than justified by the quantity or quality of the grain actually delivered; (3) Sales of grain by a warehouseman who then collects storage without actually having grain in store against the contract for delivery at some later date.

J. F. Leahy, chairman of the National Grain Trade Council, says:

"We do not believe that there are enough of these violations and evasions to warrant charges against the trade as a whole. We do recognize how, under a tight ceiling condition, the existence of certain necessary markups in the O.P.A. orders tempts an occasional dealer to levy tribute on the grain movement where such levies are not normal to the trade and cannot be justified by any marketing necessity.

"The trade as a body condemns such practices, and even where they develop in occasional instances we will do everything possible to prevent their recurrence. As to willful violations of the orders, we only encourage the O.P.A. to tighten its enforcement, for prosecution of such violators will

be a protection for the majority of the men in the trade who follow the spirit as well as the letter of the orders."

Once Upon a Time

There was a dachshund, once, so long
He hadn't any notion
How long it took to notify
His tail of his emotion;
And so it happened, while his eyes
Were filled with tears and sadness,
His little tail went wagging on
Because of previous gladness.

Northwestern Pioneer Passes Away

While attending the annual Farmers Night dinner of the Rotary Club, Jan. 12, E. A. Brown suffered a heart attack and never regained consciousness, dying two hours later. He had had several minor attacks during the preceding two weeks.

Edward Appleton Brown was born at Winneconne, Wis., Oct. 15, 1856, and at the age of 16 drove with his parents by ox team to a farm in Clinton County, Minnesota, where he worked for several years. While so employed he was persuaded by a representative of the Queen Bee mill at Sioux Falls to rent an idle flat house at Ash Creek in 1878 and buy grain to be sold to the mill.

Thus was founded the E. A. Brown Co., now operating a line of 25 country elevators with headquarters at Luverne, Minn.

The first year the family lived in a dug-out with a sod roof.

Before engaging in grain buying Mr. Brown graded a mile of the railroad and also did some construction work in South Dakota.

When the bank at Ellsworth failed in the depression of 1894 Mr. Brown took it over and re-established it for the benefit of the community.

By 1902 fire insurance rates on grain elevators ran so high that Mr. Brown and several other grain dealers in Minnesota, Iowa and South Dakota formed the Tri-State Mutual Grain Dealers Fire Insurance Co. Mr. Brown has been president ever since.

He was the first mayor of Luverne, serving three terms, and was an official at Ellsworth and Hardwick, Minn., banks.

He was twice married. He is survived by two daughters and a son, E. W. Brown of Luverne.



E. A. Brown, Luverne, Minn., Dies at Dinner

Soliciting Orders Is Not Retailing

The Allis-Chalmers Mfg. Co. was given judgment against Warren Wright, Illinois state treasurer, who had wrongfully collected the retailers' occupational tax on sales of machinery shipped from West Allis, Wis., the Illinois Supreme Court reversing the decision of the Sangamon County Circuit Court.

It was agreed that Allis-Chalmers sold its heavy line products to customers in Illinois by one of three methods. (1) Solicitors from the Chicago or Rockford offices would obtain an order from an Illinois buyer. (2) The purchaser in Illinois mails the order to West Allis, Wis. (3) The same as the first, except that the purchaser is solicited in Illinois by a salesman from the home office or from an office outside the state.

The State Treasurer claimed that plaintiff's solicitation of orders is engaging in the state in the business of selling tangible personal property at retail.

The Supreme Court, however, said "The statute does not authorize the imposition of a tax upon the occupation of soliciting orders and that was the only business plaintiff was engaged in within the State."—50 N.E. Rep. 508.

More white corn was grown in Nebraska in 1943 than in any other corn belt state, harvesting 30,328,000 bus.

Millers National Federation will hold its annual convention May 3, 4 and 5 at the Edgewater Beach Hotel, Chicago, Ill.

Victory Gardeners and civilians will receive 70.3 per cent of the supply of vegetable seeds allocated for the 12 months ending June 30, 1944, the W.F.A. announced.

Trial of the Millers National Federation on the charge of conspiracy to fix prices has been postponed to Apr. 24. Suitable comment on this ridiculous proceeding cannot be made on account of the restraint on publishing material affecting court decisions.

Holding warehouse stored loan wheat is no longer of advantage declared Dwight S. Tolle, marketing economist of the Kansas College Extension Service. "It is useless to pay three per cent interest and one cent a month storage when price advances are out of the question."

Bellingham, Wash.—Continued payment of dairy subsidies, the Washington State Dairy-men's Ass'n contended in a resolution approved at their special meeting would result "in regimentation and control of the industry by governmental agencies and will undermine American enterprise and the American way of life."—F. K. H.

Coming Conventions

Trade conventions are always worth while as they afford live, progressive grain dealers a chance to meet other merchants from the same line of business under favorable conditions. You can not afford to pass up these opportunities to cultivate friendly relations and profit by the experience and study of others.

Feb. 1, 2. Farmers Grain Dealers Ass'n of Illinois, Pere Marquette Hotel, Peoria, Ill.

Feb. 15, 16. The Farmers Elvtr. Ass'n of Minnesota, Radisson Hotel, Minneapolis, Minn.

Feb. 21-22. Ohio Farmers Grain Dealers Ass'n, Hotel Secor, Toledo, O.

Feb. 28. Farmers Grain Dealers Ass'n of Indiana, Spencer Hotel, Marion, Ind.

May 15. Missouri Grain, Feed & Millers Ass'n, Statler Hotel, St. Louis, Mo.

May 23, 24, 25. American Ass'n of Cereal Chemists, Nicollet Hotel, Minneapolis, Minn.

June 14, 15, 16. Southern Seedsmens Ass'n, Memphis, Tenn.

June 20, 21. American Seed Trade Ass'n, Palmer House, Chicago, Ill.

Asked—Answered

[Readers desiring trade information should send query for free publication here. The experience of brother dealers is most helpful. Replies to queries are solicited.]

Outlet for Cobs?

Grain & Feed Journals: Please give us the names and addresses of the company that is interested in buying cobs loaded in cars.—Pesotum Grain Co., Pesotum, Ill.

Ans.: Offers of corn cobs may be made to H. W. Hochbaum, U. S. Dept. of Agriculture, Extension Service, Washington 25, D. C.; or the Chief of the Division of Field Construction, Extension Service, Dept. of Agriculture.

Computing Costs of Drying Corn?

Grain & Feed Journals: In a recent issue of your magazine we noticed at the lower right hand corner of a page, an article in regard to high moisture content of corn. This article went on to state that cautious corn driers will use the Minary tables for computing elevating and shrinkage costs.

Will you please advise what these tables are and where they can be obtained.—R. P. Bailey, feed department Nappanee Milling Co., Nappanee, Ind.

Ans.: Pages of these tables are given on pages 512 and 513 of Dec. 22 number, as prepared by T. H. Minary, Jr.

Can Capacity of Legs Be Doubled with More Cups?

Grain & Feed Journals: We have an old elevator of about 20,000 bus. storage capacity and three concrete storage tanks adjacent giving us 23,500 bus. additional storage space. This gives us ample storage room for ordinary times, but the growing demand for special space for beans, from processors, emphasizes our need for faster elevating capacity as well as a higher leg so we can deliver more beans and grain to each bin every hour.

Our present leg is equipped with 5x7 inch buckets running over a wood pulley, which is about 30 inches in diameter. We would like to double or triple its elevating capacity, so we can handle more beans every day and not delay cars when the railroad urges us to hurry and get them rolling and we are just as anxious to gain storage space. What is the most practical and the most economical thing to do? Any light in the matter will be greatly appreciated.—J. and B.

Ans.:—To our way of thinking the most efficient results will be attained by your throwing out your old leg and putting in new, modern equipment. While some country elevator operators have materially increased the elevating capacity of their old leg by doubling the number of buckets on the belt, they have increased the fire hazard of the leg and materially reduced the safety of the entire plant.

Trying to double the elevating capacity of a leg without enlarging the belt, the head pulley, the bearings of the head pulley and the power, is just like trying to induce a 300-lb. fat man to hurry and get up a steep hill. He loses his breath and perspires profusely even though he fails to attain his goal in reduced time.

A larger belt with larger and more cups, as well as anti-friction bearings, a larger head pulley with improved modern drive and much greater power will insure much more satisfactory results without inviting a breakdown or a friction fire.

Wherever anti-friction bearings have been substituted for old style plain bearings a saving in power has more than offset the cost of the improvement and in many cases the installation of the modern bearings has reduced the cost of fire insurance.

The old 1,500 to 2,000 bus. leg is obsolete along with the ten-ton scale, and the log dump of pioneer days. Time was when a grain dealer did not mind spending Sunday at the elevator while he was trying to load one car, but, today

grain is sold for prompt delivery and the quicker it goes into the car the sooner is the grain shipper happy to start it on its way.

More information as to the height of the present leg and, the height to which it is desired to elevate the grain for wider distribution, the easier it will be to give a definite list of the equipment needed to attain faster elevating and quicker distribution. We doubt not the problems confronting you are confronting many other operators of obsolete equipment because our mail discloses that hundreds of grain elevator operators are anxious to speed up their facilities and get quicker results. Loading cars all night or on Sunday and holidays does not appeal to today's grain shippers.

Ceiling on Farm Corn?

Grain & Feed Journals: A speculator bought 1,500 bus. ear corn at a farm sale for 98c per bu. of 70 lbs. He now wants to sell the lot for \$1.02 at the crib. Corn will show 22 to 24% moisture. Our track price is \$1.1375 for No. 2 Yellow, 15.5%.

Disct. for 23% 11.75 or 1.02 for his corn. What is ceiling price should a trucker want to buy? Kindly advise.—Ben Levy Grain Co., Ossian, Ind.

Ans.: Taking up this matter of trucker's buying price with the Chicago Regional Office of the O.P.A. we were informed by Mr. Covington that the price of the corn to the trucker or anyone else at the farm crib was the ceiling f.o.b. farm, as provided in Sec. 4 of M.P.R. 346, second revision of Dec. 4, which is four cents less than the formula price set forth in the Appendix.

According to the figures given on freight and discount the ceiling price that a trucker can pay is 98c f.o.b. farm. The speculator can obtain the desired \$1.02 by hauling to the elevator. Indiana buyers should obtain ceiling interpretations from the Indianapolis regional O.P.A. office.

Bonus to Employees?

Grain & Feed Journals: Under the government regulation against raising pay can we reward a faithful worker by giving him a bonus?—O. J. Burton.

Ans.: Bonus payments, within certain limitations, are permissible under the salary stabilization program without obtaining prior approval. Briefly, the following may be so paid:

1. If the base salary has not been increased since 10/3/42 (salaries of more than \$5,000) or since 10/27/42 (salaries of \$5,000 or less) and the bonus does not exceed that paid prior to those dates.

2. If the base salary has been increased since 10/3/42 and the bonus does not exceed that paid for the first year after 10/3/42 and is not in excess of 20 per cent of the present base salary.

3. If the employee has been paid regularly as an established policy, a bonus based on a percentage of base salary provided the percentage has not been increased.

4. If the bonus together with all other compensation does not increase his present compensation over that for the calendar year 1941 by more than 15% if such compensation in 1941 was \$2,400 or less, 10% if it was over \$2,400 but not over \$4,000, or 5% if over \$4,000 but not over \$7,500.

Wheat Show at Lincoln, Nebr.

A Nebraska Wheat Show open to all farmers will be held as a part of the organized agriculture meetings at the College of Agriculture Feb. 9 and 10. The show is sponsored by the Nebraska Crop Improvement Ass'n and the Nebraska Grain Improvement Ass'n.

The purpose of the show and contest is to encourage further improvement in market quality of Nebraska wheat. The contest is open to any wheat grower in Nebraska and an entry

will consist of one quart of hard winter or spring wheat grown by the exhibitor in 1943.

J. C. Swinbank, Secretary of the Grain Improvement Ass'n, says the entries must be received at the College of Agriculture by Feb. 8. Samples will be judged on the basis of market grain quality as indicated by external appearance and test weight.

The Pillsbury wheat trophy, awarded annually, will go to the winning exhibitor with \$10 in cash. Second place gets \$5, third \$4, fourth \$3, fifth \$2, and samples placing sixth to tenth will get \$1 each.

Winners of the first and second prizes in the Nebraska wheat show will be eligible to compete for the Pillsbury national wheat prize a large trophy, \$50 in cash and, if possible, an all-expense trip to Minneapolis.

New President St. Joseph Grain Exchange

Newly elected officers of the Saint Joseph Grain Exchange for 1944, chosen at a special meeting of the Board of Directors on Jan. 11th, are C. D. Kieber, President, and A. B. Plummer, Vice-President.

Mr. Kieber came to St. Joseph from Milwaukee in 1929, being associated with A. R. Taylor in the Stratton Grain Co., operating the Buchanan Elevator of 2,000,000 bus. capacity.

Upon the death of Mr. Taylor, Mr. Kieber succeeded to the managership of the St. Joseph office of the Company. He has been active in Exchange affairs and on committees, especially since becoming local manager for the Stratton Grain Co. He was Vice-President of the Exchange in 1942 and 1943.



C. D. Kieber, President St. Joseph Grain Exchange

Program Farmer Grain Dealers' Ass'n of Illinois

The tentative program of the 41st annual convention of the Farmer Grain Dealers' Ass'n of Ill., to be held at the Pere Marquette, Peoria, Ill., Feb. 1 and 2, follows:

Tuesday, Feb. 1st, Sessions

Pere Marquette Hotel.

Registration Fee \$1.00. One fee will include all delegates from a member elevator company.

2:00 P. M.—Invocation—Rev. H. E. Meyer, Tremont.

Address of Welcome—Homer Dewey, President, Peoria Board of Trade.

Response—J. W. Ainsworth, Vice-Pres., Mason City.

Secretary's Report—Lawrence Farlow, Bloomington.

Treasurer's Report—Chas. Fairfield, Fisher.

Report on Auditing—Harry Hieser, Bloomington.

Report on Insurance Contracts—T. E. Sullivan, Omaha.

Report of Joint Transportation Committee—C. H. Stout, Gilman.

Banquet—Hotel Ballroom.

Roast Turkey Dinner and a complete floor show, featuring: Pat Buttram, Guest Speaker, Bonnie and Connie, Harmony Singers, and Flasho, the Magician, all from Radio Station WLS.

Wednesday, Feb. 2nd, Sessions

9:30 A. M.—Managers' Club in Charge—Harold Steele, Fisher, presiding.

President's Address—L. E. Riley, Pleasant Plains.

"Grain Price Ceilings"—Elizabeth L. Bonham, District Price Attorney, OPA, Peoria.

"Transportation Outlook for 1944"—W. D. Beck, District Manager, Car Service Division, Association of American Railroads, Chicago.

"The Corn Borer and Other Crop Insects"—H. B. Petty, Extension Entomologist, State Natural History Survey Division, Urbana.

Managers' Club Luncheon and Business Meeting—LaSalle Room, Pere Marquette Hotel—Sponsored by the Peoria Board of Trade.

Ladies' Luncheon and card party for all ladies attending the convention.

2:00 P. M.—"Production and Marketing Outlook, Soybeans and Other Crops"—Dr. J. C. Hackleman, Professor, Crops Extension, College of Agriculture, Urbana.

"Observation of Wartime Agriculture in the British Isles"—Oscar Heline, President, Farmers Grain Dealers Assn. of Iowa.

Dust Explosions of 1943

The year 1943 saw a gratifying falling off in the number of explosions of dust in grain elevators, there having been only four compared with nine the year before. The four dust explosions of the year were:

Feb. 23, Saginaw (Ft. Worth), Tex.—Dust explosion in the head house and a second explosion in storage structure started fire destroying roof. Several empty bins of concrete were damaged in the 4,000,000-bu. elevator of Burrus Mill & Elevator Co. Two men were injured. Loss over \$5,000,000.

May 3, Salina, Kan.—Dust explosion blew up head house of north elevator of H. D. Lee Flour Mills Co., tearing away the circular stairway, ruining the machinery and spilling 15,000 bus. of wheat. Three men were killed. Loss, \$150,000.

Oct. —, Vermillion, S. D.—Dust explosion started several small fires in the elevator of J. C. Mullaney Co., that were quickly extinguished with small damage. One man had hair and eyebrows singed.

Oct. 12, Tacoma, Wash.—Overheated motor caused dust explosion and fire, doing \$15,000 damage to shipping gallery of Port of Tacoma Elevator.

The year 1944 starts out with an explosion near Pendleton, Ore., in the elevator of S. R. Thompson at Blakely, blowing out windows and doors of the elevator and shifting the grain office from its foundations. One man badly burned.

Explosion of Grain Dust in Country Elevator

It is not often that we report the explosion of grain dust when suspended in air in a country elevator. One reason is the dust due to abrasion through the handling of the grain once in the country elevator and then into a box car and out into the terminal house. The recent explosion of grain dust in the basement of the S. R. Thompson elevator near Pendleton, Ore., was traceable directly to a spark from an electric light cord being used in cleaning up the dust, dirt and spilled grain in the basement.

Bert Haynes, the operator was badly burned on his hands and face. The windows and doors of the elevator were blown out as is shown by our illustration on outside front cover and herewith. The office building adjoining the elevator was shifted from its foundation.

It is very evident that the bin storage afforded so little communication between the basement and the cupola of the house that little damage was done in the cupola, but the large driveway doors and windows on the first floor were wrecked.

Cleaner floors, ledges and walls can always be depended upon to minimize the damage due to the ignition of the explosive dust.

This explosion occurred shortly before noon. It seemed to exert greater force upwards than sidewise. The office was moved four inches from the elevator. Only one man was injured. Mr. Haynes' hands were burned so severely the doctor declared he would not be able to use his hands for months.

One freak incident was the blowing out of a window sash across a railroad track, 75 yards distant, without breaking the glass.

A smoldering fire resulted in the basement but this was quickly extinguished.



Explosion of Grain Dust in J. R. Thompson's Elevator at Berkely, near Pendleton, Ore., blew off doors and windows. [See Outside Front Cover.]

ing system is being trodden to bits. Our only recourse is to fight for our rights courageously, fairly, and with unflinching determination.

That, briefly, is the picture as we move into another year of war.

Washington News

A reorganization places the A.A.A., F.S.A., and S.C.S. under Marvin Jones instead of under "We are going to push the subsidy ban with full vigor."—Senator John H. Bankhead.

Appropriations for the Department of Agriculture in the president's budget message are \$659,000,000, which is \$314,000,000 less than the current appropriation.

The O.P.A. states that enriched corn meal and grits will be considered new products and wholesalers and retailers will be permitted to refigure their ceilings accordingly.

Interpretation No. 3 of Priorities Regulation No. 1 lists five exceptions to the rule that a seller must sell his product to any person who presents him with a rated order.

The Senate banking committee on Jan. 19 approved a bill banning all food subsidies after June 30. The National Farmers Union favors and other farm organizations oppose food subsidies to consumers.

The restraint on shipping hogs is forcing the holding of some after they reached the 300-lb. subsidy limit, so, effective Jan. 27, the W.F.A. extended its support price program to hogs weighing up to 330 lbs.

Congressman Reid of New York has submitted to the Ways and Means Committee a new resolution—H. J. No. 217—calling for a 90-day exemption of duty on flaxseed when imported for processing into oil and meal.

The significance of changes made by customers in orders placed with producers is covered by Interpretation No. 10 to C.M.P. Reg. 1. J. B. Hutson of the C.C.C., perhaps to make it more difficult for Congress to put an end to consumer food subsidies.

With 170 million bushels of grain estimated as essential for the 1944 industrial alcohol program, the industry is considering erection of plants to utilize non-food raw materials for a portion of the production, it was announced Jan. 20 by the War Production Board.

Firms that have been granted exemption from the payment of federal income taxes have also been exempted from filing income tax reports. The House Ways and Means Committee has recommended a requirement that such firms be required to file a report at the close of each fiscal year hereafter.

Donald M. Nelson, chairman of the War Production Board, announced that W.P.B. will keep production for civilian purposes out of labor shortage areas when necessary to prevent interference with war production. The W.P.B. will not grant authority to produce, purchase or use materials which will cause an increase of employment in areas where labor shortages already exist or are anticipated in the predictable future, if such an increase will endanger more urgent production.

To Buy Cuban Molasses

The State Department has announced that the Defense Supplies Corporation will buy 800,000 short tons of invert molasses from the 1944 Cuban sugar crop at 2.5c per pound of total sugar content f.o.b. tank car at Cuban terminal.

The molasses will be used in the production of industrial alcohol, which should tend to ease the strain on wheat and other grains which have been used in enormous quantities because of previous limitations of blackstrap.

Contour Farming gave Max Miller, farmer of Stanton, Neb., 12 more bushels per acre of corn than up and down hill cultivation in the same field.

Protest Contemplated Feed Grain Roll Back

United protests against planned maximum price reductions in oats and barley have been telegraphed to high W.F.A. and O.P.A. officials in Washington by Minneapolis grain receiving, shipping and terminal interests.

With the present grain movement at a low ebb due to price regulations, it was pointed out that reducing ceiling prices would further curb the amount of grain available to satisfy trade demands and, in addition, lower ceilings would have unsatisfactory reactions on the farmers' financial status.

Temporary price regulations were imposed on oats and barley by O.P.A. a short while ago and are to expire Feb. 4th at which time it is suspected that O.P.A. will announce a permanent price regulation at levels lower than those now effective.

Money in circulation Nov. 30 was \$19,900,000,000, against \$14,800,000,000 Nov. 30, 1942.

C.C.C. Grain Loan Maturities

WHEAT, warehouse stored, Apr. 30, 1943; farm stored, Apr. 30, 1944.

CORN, all stored on farm, on demand, or Oct. 1, 1944.

BARLEY, on demand, but not later than Apr. 30, 1944.

GRAIN SORGHUMS, on demand, but not later than June 30, 1944.

Parity and Farm Prices

PARITY						
Date	Wheat	Corn	Oats	Rye	Barley	Soybeans
Jan. 15..	139.7	101.4	63	113.8	97.8	152
Feb. 15..	141.4	102.7	63.8	115.2	99	154
Mar. 15..	142.3	103.4	64.2	115.9	99.7	155
Apr. 15..	143.2	104.0	64.6	116.6	100.3	156
May 15..	144.1	104.6	65.0	117.4	100.9	156.0
June 15..	145.0	105.0	65.4	118.0	102.0	157.0
July 15..	146.0	106.0	65.8	119.0	102.1	158.0
Aug. 15..	146.0	106.0	65.8	119.0	102.0	158.0
Sept. 15..	146.0	106.0	65.8	119.0	102.0	158.0
Oct. 15..	147.0	107.0	66.2	120.0	103.0	159.0
Nov. 15..	148.0	107.0	66.0	120.0	103.0	160.0
Dec. 15..	149.0	108.0	67.0	121.0	104.0	161.0

FARM PRICES						
Date	Wheat	Corn	Oats	Rye	Barley	Soybeans
Jan. 15..	117.5	88	52.5	61.3	68.3	159
Feb. 15..	119.5	90.4	55.5	64.1	70.7	160
Mar. 15..	122.7	94.8	58.4	68.9	74.8	165
Apr. 15..	122.3	100.2	61.1	69.5	77.3	167
May 15..	122.8	103.4	61.2	71.9	76.8	172.0
June 15..	124.0	106.0	64.8	73.7	83.9	173.0
July 15..	126.0	108.0	65.6	90.9	92.0	170.0
Aug. 15..	127.0	109.0	65.2	88.4	92.9	168.0
Sept. 15..	130.0	109.0	74.6	94.9	96.5	169.0
Oct. 15..	135.0	107.0	74.4	101.0	103.0	180.0
Nov. 15..	137.0	105.0	75.0	102.0	103.0	180.0
Dec. 15..	143.0	111.0	76.9	107.0	105.0	181.0

Open Interest in Future Deliveries

As reported by the Compliance Branch of the Food Distribution Administration the open interest in all futures on the Chicago Board of Trade recently has been as follows, in 1000 bus.:

	Wheat	Barley	Oats	Rye
Aug. 14	53,419	.....	18,991	40,890
Aug. 21	53,420	.....	19,180	40,653
Aug. 28	52,516	.....	19,437	38,354
Sept. 4	49,089	.....	20,277	37,239
Sept. 11	50,064	.....	20,316	38,088
Sept. 18	51,009	.....	18,897	39,020
Sept. 25	50,493	.....	19,186	38,206
Oct. 2	51,474	.....	19,817	38,668
Oct. 9	51,266	.....	20,264	38,638
Oct. 16	49,111	631	19,460	37,447
Oct. 23	48,097	939	19,731	40,177
Oct. 30	45,483	1,281	19,665	41,998
Nov. 6	45,229	1,493	19,233	42,991
Nov. 13	43,963	1,659	18,940	42,568
Nov. 20	41,198	1,405	17,485	42,227
Nov. 27	39,094	1,420	16,941	41,626
Dec. 4	36,781	1,576	17,002	39,194
Dec. 11	36,923	1,839	14,683	38,841
Dec. 18	38,870	1,324	15,331	39,680
Jan. 15	33,604	1,320	12,702	43,648
Jan. 22	34,385	1,321	12,950	45,592
Dec. 24	35,175	1,205	13,951	38,834
Dec. 31	37,343	1,236	13,793	39,428
Jan. 8	32,775	1,339	14,683	38,841

Crop Reports

Reports on the acreage, condition and yield of grain and field seeds are always welcome.

Sacramento, Cal.—The estimate of barley acreage in 1943 as compared to 1942, shown in parentheses, was 1,299,000 (1,511,000).—Geo. A. Scott, Agrl. statistician in charge.

Norton, Kan., Jan. 22.—We need moisture badly out this way. However with spring rains, etc., we still have a chance to raise a fair crop.—Goffe & Carkener, Inc., C. M. Clark.

Golden Gate, Ill., Jan. 22.—No snow this winter to speak of; no rain. Wheat plants are small, ground is cracked, wells are low; we will have to have some moisture before long or our wheat will be a small crop. Dust flies like in the fall of year. Corn is a short crop. No wheat on hand. Ground is frozen thru. Farm help is very short.—French & Smith.

Dodge City, Kan., Jan. 22.—A fair pattern of present winter wheat prospects can be obtained by drawing a straight line from the northeast corner of Nemaha county in north-eastern Kansas straight through to the south-western corner of Morton county in the south-west corner of the state. Generally speaking, the area south and east of this line received beneficial December moisture, and winter wheat prospects will average from 75% to 80% of normal; while north and west of this line, is still greatly deficient in both surface and sub-soil moisture with wheat conditions averaging probably less than 50%—some counties showing as low as 20% by the U.S.D.A. report of December first. The acreage included on either side of this line represents about 50% of the total 13,311,000 acres seeded.—J. F. Moyer, sec'y, Kansas Grain, Feed & Seed Dealers Ass'n.

Minneapolis, Minn., Jan. 22.—Discouraging reports continue to reach us as to the prospective flax acreage for 1944 thruout the Northwest. Dry, mild weather continues thruout the flax belt and altho it is too early to be much concerned about weather at planting time, there will have to be considerable moisture to put the ground in condition for planting of the flax crop this season. Seed houses report some cancellations of orders for seed flax. Reports are also reaching us from Kansas and Texas of reduced acreages of flax this year. In Texas it has been too wet in the flax belt to do much planting. In Kansas flax is being replaced by wheat. We reported last week the sharp reduction in the California acreage from 308,000 last year to 189,000 this year. The present crop in California is developing satisfactorily. Soil moisture conditions in the San Joaquin Valley are favorable altho a good soaking rain is desired. Rains in the Imperial Valley caused some delay in planting operations. Temperatures have favored crop growth. Growers are now practically thru planting in California.—Archer-Daniels-Midland Co., T. L. Daniels.

C.C.C. Loan Rates on Grain

BARLEY, on farms, No. 1, 75c; No. 2, 73c; No. 4, 67c per bushel. In California, Idaho, Oregon and Washington, 5c higher.

SORGHUMS, on farms, No. 2 or better, 85c; No. 3, 80c; No. 4, 70c. In Arizona and California, 5c higher.

FLAXSEED at Minneapolis \$2.85 for No. 1.

CORN, 81c to \$1.01 per bushel for No. 3.

WHEAT, average \$1.23 per bushel on farm.

SOYBEANS, \$1.80 per bushel at the country elevator for No. 2 green and yellow of 1943 crop.

RYE, for No. 2 or better, 75c on farm, 68c in warehouse, no farm storage payment.

701 Hoosiers Glad to Support State Ass'n

The Indiana Grain & Feed Dealers Ass'n held its 43rd annual convention at the Columbia Club, Indianapolis, Jan. 24 and 25, with over 400 dealers in attendance.

The capacity crowd attending all sessions was well repaid with an excellent program of interesting speakers and earnest discussion of matters vital to the trade.

President H. E. Miller, Greencastle, presided at the opening session Monday morning and gave his annual address, which follows:

Our Industry Is Challenged

We are still engaged in a horrible war, and the successful prosecution of that war, is the primary duty of every American citizen. No one knows when the transition from war to a peace-time economy will begin. The dislocations resulting from the cessation of war and the conversion to peace will necessitate immediate adjustments. Private industry must be prepared to meet this emergency. If it is not, the government will take over and it will then be too late to plan. Free enterprise will lie dormant for decades, if it's sponsors fail to meet this challenge.

We must, somehow, find time to plan now, individually, as a group and with industry as a whole. I enthusiastically endorse the program of the Committee for Economic Development, which is a national organization established by individual businesses. I urge every member of our association to participate in this movement for national planning by private industry.

Disunity in our industry, if nurtured, will sabotage our efforts and ability to meet the challenges confronting us. This is a day of group action. We have very recently witnessed the success of certain pressure groups in attaining questionable ends. Until the power of such groups is dissipated or their pressure is diverted to the nation's welfare, all sane Americans must of necessity unite and exert sufficient pressure to keep the Ship of State on an even keel.

Intolerance is the mother of disunity. Competition is the life-blood of free enterprise. If we are to have a united industry, we must realize that our competitor is our associate, not our enemy. All branches of our industry are interdependent. And, no justification exists for contention between large and small business. Small units of industry prosper by the progress made possible through research conducted by the large units. If small business fails, big business will lose its freedom through government control. Therefore, the existence of small business perpetuates the freedom of big business.

THE INTRUSION of government into business has been facilitated by disunity in the ranks of private industry. As an example, has our industry assisted the private banks in their battle against regimentation, and the Federal lending agencies which are rapidly destroying our private banking system? One bank in our county is now liquidating due to its inability to cope with federal competition.

I know of other banks which are unable to make customers' loans for as much as 10% of their assets, due to the competition of the P.C.A. and the F.S.A. Yet there is no united effort to correct this appalling situation. On the other hand, did the banks or other industries of the nation join us in our opposition to the intrusion of the C.C.C. and the A.A.A. in our field? There are numerous examples of this lack of mutuality of concern in industry and of our general apathy to the regimentation of our associates. We must become alert to collectivism wherever it shows its ugly head and be as ready to help stamp it out of our neighbor's yard as we are to eradicate it from our own.

I SINCERELY ADVOCATE the premise

that any group, farmers, consumers, or any other citizens should have the right to pool their capital and enter into a cooperative business and to operate such an enterprise in free competition with private business. But, for the government to subsidize such a group at the expense of any other group, is inequitable, unjust and un-American. Subsidy to various business groups through tax exemptions and preferential financing is the greatest menace facing private industry today. This unmerited preference being extended to the cooperatives with the current high tax rates, will in a short time enable them to purchase control of all industry, both large and small. When and if that situation arrives, free enterprise will cease and collectivism will be inevitable. Surely our farmer and business friends who are associated with cooperative companies have no desire to contribute to the destruction of free enterprise and therefore will not oppose our efforts to correct this glaring maladjustment.

I am an optimist, not a defeatist. There are very few avowed enemies of free enterprise. I believe it will eventually be loosed from its shackles. But, when it will be unfettered will depend more on its gullible friends who condone innovations and encourage experiments which stifle it, than on its openly declared opponents.

This is the 43rd Annual Convention of our Indiana Grain and Feed Dealers' Ass'n. Great advancement has been made in those 43 years. But, our system of free enterprise which has made these achievements possible is seriously challenged. In fact, on the degree with which we cooperate with the other friends of free industry, the efficiency with which we solve the problems of reconstruction and the unselfishness and tenacity with which we combat inequity whenever and wherever apparent, will materially depend the ability of our descendants to meet 43 years from today as representatives of a free industry in a land, such as our present Constitution enjoins, that offers equal opportunity to all.



H. E. Miller, Greencastle, Ind.,
Re-elected President

Sec'y Fred K. Sale, Indianapolis, read his annual report, as follows:

Secretary Sale's Annual Report

This convention is our second since our country entered World War II. In the grain and feed business we find ourselves confronted with serious problems on every hand. We find our business, yes and our living conditions, regulated and regimented far more than a year ago. Taxes are mounting higher and higher. The Government is spending lavishly, and in too many instances wastefully spending. In spite of this we are in a war and you and I are going to do our part to win it, regardless of our sacrifices.

How long could this war continue without the services of the grain dealers, the feed dealers and the millers? It is a fact food and feed will win the war. Our duties of collecting the grains, storing, conditioning, shipping and processing them for food and feed for human and livestock consumption, cannot be over-emphasized. Truly our industry is as essential to the war effort as is the manufacture of planes, tanks, ships and munitions. I wonder if we are advertising, so to speak, in our local communities and to the world at large, the essential position and the necessity for the existence of our business now and in the future.

This report could easily take several times the time that I will take this morning, if I were to give you a detailed report of our activities the past twelve months. Your Association has represented you at conferences in Chicago on regulations covering millfeeds, corn ceilings, wheat ceilings and twice on soybean handling charges. Our Indiana member of the Country Retail Feed Committee of the National Association attended a Chicago meeting of that committee early last year. Your secretary was one of three from Indiana called into Chicago last March to establish what later became the Indiana Feed Conservation Council. The Council members represented all branches of the feed industry. A series of six group meetings held over the state gave publicity to the national program of conserving our proteins in feeds and feeding methods. The Council also was called upon by the State War Board to allocate animal protein feeds shipped into the state in carloads.

YOUR ASSOCIATION also sent delegates to Washington, D. C., for conferences in November and again early in December, with government agencies in the formulating of regulations on oilseed meals. At all of these conferences those sent were selected because of their ability and knowledge of their special mission. They gave freely of their valuable time and their expenses were paid by the Association.

GROUP MEETINGS were arranged and attended by the Secretary during the year, many of which were to discuss corn ceilings and feed regulations. The fourth annual feed nutrition school was held at Purdue University on Sept. 30. Your Association originated this school four years ago and it has increased in interest and value to the feed trade in each succeeding year. Four meetings of your Board of Directors have been held during the past year for the transaction of Association business. A special by-laws committee was appointed to revise and draw up a new set of by-laws to be approved by the Board of Directors and to be adopted at this convention. The Association changed its name from the Indiana Grain Dealers Ass'n to the Indiana Grain & Feed Dealers Ass'n, and was incorporated in the state of Indiana on June 28, 1943. This was by action of the membership taken at the midsummer convention in June.

MEMBERSHIP is a subject of which every member should be proud to talk about. Following the convention last year I set up in my own mind that we should get 100 new members before another convention. No special campaign was put on, nor any special traveling on my part to sign up members. Last Wednesday the 100th new member was turned in to us and it came from President Miller. Since then several others have arrived until at this time a total of 109 new members have joined with us since our meeting a year ago. This fine work has come through the splendid efforts of our boosters whose names appear on the honor roll, and here are their names together with the number of applications each one secured: Sam Kraus, Ft. Wayne, 12; President H. E. Miller, Greencastle, 8; C. C. Barnes, Winchester, 4; S. J. Alexander, Crawfordsville, 3; Walter R. Beck, Shelbyville, 2; Robert Morris, Evansville, 2; Wm. L. Nordmeyer, Morris, 2; Clay Syler, North Manchester, 2; G. A. Pritchard, Indianapolis, 2; and 1 member each for the following: Russell M. Davis Tipton; F. A. Clements, Economy; Emery R. Chase, Whites-town; John M. Holder, Slifford; Walter E. Einspahr, North Hayden; B. E. Etchison, Stewart; R. W. Garten, Indianapolis; W. A. Gray, Kirkpatrick; L. E. Greenwood, Rensselaer; C. C. Harlan, Kentland; J. P. Lantz, Middlebury; R. J. Martin, New Paris; R. L. Mossburg, Warren; Wm. L. Hunnicutt, Indianapolis; D. R. Eaton, Valparaiso; B. J. Gibson, Indianapolis; H. D. O'Brien, Indianapolis; D. B. Shaw, Crete; G. R. Straub, Crawfordsville; O. C. Teel, Mentone; Hartford Sallee, Indianapolis; A. W. Stout, Plymouth; O. L. Taylor, Brazil, and C. T. Wilson, Sulphur Springs. The other members were secured by the Secretary. (Stand up.)

Our membership reported a year ago was 622. During the year we have lost by change of ownership, 23; suspended, nonpayment dues, 4; out of business, 3—a total loss of 30. These deducted from our 109 new members gives us a net gain of 79. Our membership today is 701, which is by far the largest in the history of the Association.

DEATHS have taken a heavy toll this year and taken from us a total of 8 members. Should there be others who were owners or executives of member firms not mentioned, will you advise me of same today so our records may be corrected? Those who have passed away during the year of 1943 are: C. A. Breden of Odon; John F. Russell, Greensburg; Martin Cutsinger, Edinburg; Francis Knecht, Hartford City; Max Kraus, Fort Wayne; John C. Gregg, Greenwood; R. C. Crawford, St. Louis, and E. P. McKenna of Chicago. And to this group I feel we should add the name of your faithful employee and my capable Assistant Secretary, Miss Eva S. True. In tribute to these departed friends, may we stand a moment in silent meditation.

DURING THE YEAR our office has endeavored to keep the membership well and promptly informed, through our Bulletins, of price control regulations and of many other matters that had a direct bearing on the welfare of your business. Twenty-four regular Bulletins were mailed, many of which contained special supplements and other enclosures. Our office work has been exceedingly heavy during the year. We should have had additional part-time stenographic help during much of the time, but in our city such help was not obtainable. You have been very patient and considerate with us and we have enjoyed being of service to you at all times. You have responded splendidly to our request for the prompt payment of your dues. At the close of our year's work on Dec. 31st there were but two members whose dues were not in our hands, and these were only due during the month of December. We wonder if any other similar grain and feed association can show as good a record at the close of their year. Along with our splendid growth in membership last

year we can also show a material increase in our financial condition. I will quote from the auditor's report.

Your Association is most fortunate in having a President and a Board of Directors who are hard workers and who this year have given freely of their time for Association affairs and for your best interests. To President Miller, Vice Pres. Pape and to the Directors, I extend you my very sincere thanks for the wonderful support you have given me this year. And to each and every member of this splendid organization my deepest appreciation for your wholehearted cooperation. To all is due the credit for the strength and prestige we enjoy today, as well as our accomplishments during the year.

All have suffered a great loss in the death of our faithful and efficient Assistant Secretary, Miss True. For 22 years she has served the interests of this Association. Her position probably cannot be filled permanently until after the war. I have been most fortunate in securing the services of Mrs. Ruby Beaver to assist me for some time at least, and I want to express to her my personal appreciation for her very able help.

VERNON SCOTT, Vice-Pres., National Tax Equality Ass'n, Chicago, delivered an address on tax inequalities.

Cooperative and governmental businesses, Mr. Scott stated, have demanded and won "privileges and favors under tax and other laws and regulations that give them tremendous trade advantages over their private business competitors, that make a mockery of the rule of fair competition." He listed as advantages enjoyed by cooperative and governmental businesses the following:

1. They pay little or no federal tax and are favored by the tax laws of many states.
2. They enjoy cheap and easy credit from governmental agencies—and the governmental businesses often are financed wholly out of public funds.
3. Their growth is promoted through governmental propaganda and services paid for out of tax funds supplied in large part by private business.
4. They occupy a preferred status in business dealings with the government and in the application by governmental agencies of wartime business controls.
5. They enjoy special exceptions and privileges under numerous business regulatory laws.

The speaker emphasized that the purpose of the National Tax Equality Ass'n was not to fight the cooperative movement as such, but to help coordinate the efforts of private business and civic groups to establish the principle that "cooperative businesses and governmental enterprises in the competitive business field must be required to abide by the same competitive rules as apply to private business."

Calling attention to the fact that the bulk of cooperative and governmental businesses completely escape the federal taxes of 40% of normal profits and 90% of excess profits levied against business corporations, Mr. Scott stated that here was an opportunity not only for Congress to correct a serious condition of competitive inequality, but also to collect hundreds of millions of dollars of taxes desperately needed for the war.

"We must understand that the ultimate objective of the cooperative movement, and the end result of the government-in-business movement, is the destruction of the private business-for-profit system," Mr. Scott said in quoting from public statements of leaders of these movements.

The speaker described methods by which tax-free cooperative businesses are able to pyramid their capital in order to absorb businesses of their competitors and called attention to recent rapid expansion of the cooperative and governmental business movements. Cooperatives, he showed, have entered virtually every field of marketing, wholesaling and retailing and many lines of manufacturing, processing, utility services and insurance and credit businesses.

In asking for the cooperation of organizations represented at the meeting, Mr. Scott outlined the functions of the National Tax Equality Ass'n in providing research, public relations and advisory services and in coordinating activities in respect to the subject with which the organization is dealing.

President Miller appointed the following committees:

RESOLUTIONS: L. A. Garner, Lawrenceburg; Noble Shaw, Crawfordsville; Avon Burk, Decatur; Vern Steckley, Kendalville; and K. M. Sower, Lebanon.

NOMINATIONS: Roy Mossberg, Warren; D. A. Pritchard, Fortville; Victor Stuckey, Berne; Floyd Meyer, St. John; and Woodson Darnall, Coatesville.

Monday Afternoon Session

President Miller presided at the Monday afternoon session.

D. G. PHILLIPS, Indianapolis, read the treasurer's report reflecting a healthy financial condition.

E. C. WELSH, Regional Price Executive, O.P.A., Cleveland, O., in discussing "The Revised Corn Ceiling Regulation," stated that it was the aim of O.P.A. to formulate fair, understandable and enforceable regulations, and asked for suggestions on right terminal prices. It is not the purpose of O.P.A. to control profits, he said, but ceilings are necessary to avoid inflation, and ceilings cannot be set without affecting profit. He stated that all local offices have for distribution short, clear digests of the regulation, and advised the dealers to obtain copies.

RAY B. BOWDEN, Executive V. P., Grain & Feed Dealers National Ass'n, after giving the dealers a vivid word picture of Washington, enumerated some reported violations of the corn ceiling regulation, and cautioned the dealers against evasion, stating that violations would bring trouble down on the entire industry.

CLIFF D. CARPENTER, Grain and Livestock Branch, F.P.A., Washington, in discussing oilseed meal regulations, outlined the activities of his branch in making a sack of feed do a better job today than ever before.

Tuesday Morning Session

President Miller again presided at the Tuesday morning session.

G. A. Pritchard, Indianapolis, chairman of the By-Laws Committee presented a revised set of by-laws which was adopted.

"Group Co-operation in the Feed Industry," a discussion of feed problems was held in which each segment of the industry presented its problems in the hope of creating better understanding and gaining co-operation by the various branches of the industry.

R. P. BAILEY, Nappanee acted as moderator. E. G. Cherbonnier, St. Louis, spoke for the processor; R. E. Underwood, New York, the ingredient supplier; M. E. Kendall, Carmel, the jobber-wholesaler; G. C. Thomas, Decatur, the feed manufacturer; and Walter Penrod, South Whitley, the retailer.

LYMAN PECK, Fort Wayne, stated that more pastures and more efficient use of pastures will give us more protein and also vitamins and urged the dealers to organize meetings with farmers to educate them on the protein situation, which he said is as bad as at the beginning of the conservation program.

D. H. MALCOM, Middletown, O., manager Agricultural Markets Dept., American Rolling Mills Co., discussed Post War Planning. He said, it is not necessary to have a major depression after this war, but the future of all of us depends upon plans now for the post war period by all of us. Big business employs less than 25% of workers and therefore any program not including all units of business cannot do the job. He enumerated as favorable factors the fairly successful control of inflation to date, the enormous savings in the hands of the public, a large demand back-log, prospect of more gradual conversion after this war, and a program of economic planning. He urged immediate post war planning by all; first by estimating the market in their field after the war and then determining how to get a proper share of that business.

L. A. Garner, Lawrenceburg, presented the following resolutions which were adopted:

Resolutions Adopted

1. Resolved that the Indiana Grain & Feed Dealers Ass'n supports the proposal that Co-operatives, in competition with private business, be placed under the same Federal Tax Obligations as private firms; that Federal Agencies should not, in their patronage, discriminate between Co-operatives and private firms.

2. Resolved that the AAA-CCC or any government Agencies controlling farm commodities should definitely appoint a representative of the feed industry to serve on each State and County Advisory Committee in equitable and efficient distribution.

3. Resolved that there be no further increase of Government agencies and that expenses be curtailed, so that no increase of taxes, postage, etc., be needed.

4. Be it further resolved that the Association go on record as being very much opposed to any increase to old age and survivors insurance tax rates that were in effect in December 1943. That no change be made in the existing machinery set up for the distribution of said benefits.

5. Resolved that we shall continue to exert every effort toward co-operating with the ODT and American Ass'n of Railroads in conserving rail equipment.

6. Furthermore, this Association extends our sincere thanks to all speakers that participated on the program, the exhibitors at the Convention, David A. Noyes & Co., for grain quotations, the group of Indianapolis grain, feed and allied interests for providing the music for the Banquet, to the Grain Dealers Mutual Fire Insurance Company for providing badges, to Mr. Joe Seabold for his fine leadership in the singing; and to all others who helped make this Convention an outstanding success.

Also we extend our sincere thanks to our President, Secretary and Directors for their fine services this past year.

Officers Elected

The following officers were unanimously elected: President, H. E. Miller, Greencastle; Vice-Pres., A. E. Allison, Indianapolis; Directors, Oscar Barr, Bicknell; W. A. Gray, Kirkpatrick; Ralph Overman, McGrawsville; and C. C. Harlan, Kentland.

The Annual Banquet

The annual banquet at the Columbia Club Monday evening was up to the high standard set in these affairs of the Indiana Ass'n through many years past. The 500 delegates and ladies in attendance enjoyed an excellent turkey dinner and a fine entertainment provided by the Indianapolis grain, feed and supply firms.

Rev. E. O. Clegg, Pastor, Grace M. E. Church was speaker of the evening.

Convention Notes

Joe W. Seabold's community songfest put the delegates in the proper mood before each session.

O. P. (Larry) Larimore was on hand to meet his host of friends and still distributes Cleveland Grain Co., pencils.

G. O. Pritchard brought along son, John R. Some of the new 109 members of the Indiana Grain & Feed Dealers Ass'n are included in the following: Delaware Feed & Seed Co., Muncie; DeMotte Feed Sales & Service, DeMotte; South Side Elevator, Union City; Rays Crossing Grain Co., Rays Crossing; Lizton Grain & Lumber Co., Lizton; Royal Center Elevator, Royal Center; Pine Village Feed Co., Pine Village; Quality Feed Store, Greencastle; Munson Feed Mills, Anderson, No. 4; Jolietville Grain Co., Jolietville; Oscar Hollander, Chicago, and J. O. Hinken, Greencastle.

Sidney Grain Mch. Co., represented by Carl Berger, W. B. Short and Al Windle, exhibited machinery and supplies.

Seedburo Equipment Co., displayed a Steinlite moisture meter and supplies with P. W. Burrows in charge.

The Glidden Co., represented by Rollie Turner, Joe Albertson and Frank Arnold displayed Glidden Feeds.

Pronto Products Co., exhibited weevil killer and rat poison with B. W. Boxmeyer in charge.

Kingsbury Co., with Jim Schell and Ivan Mills showed feed ingredients.

The Shores Co., with Wally Goken in charge exhibited mineral feeds and remedies.

Max Katz showed bags and twine.

Grain Dealers Fire Insurance Co. furnished identification badges. The Indianapolis Convention Buro aided in registering the delegates.

In Attendance

Indiana grain and feed dealers in attendance included:

Indianapolis Registration

Visiting ass'n secretaries were W. W. Cummings, Ohio Grain, Mill & Feed Dealers Ass'n, Columbus, O.; C. S. Latchaw, Ohio Farmers Grain Dealers Ass'n, Fostoria, O.

Swift & Co. was represented by Bill Froom E. C. McGee and Nelson Noble.

Insurance representatives were: R. D. McDaniel and A. E. Lief, Grain Dealers Mutual Fire Ins. Co.; H. H. Hawlick and J. E. Birong, Millers Nat'l Ins. Co.

Feed and feed ingredient men present were: Frank Holt; C. W. Devers; R. Opsal, Abie Polstra.

Illinois; James Cummings and L. R. Carpenter, Chicago; Ray Meisenholder, Palestine; B. J. Gibson, Danville; R. Sanquist, Altdo; J. D. Worsham, Sheldon.

Kentucky: Henry Fruechtenicht, B. L. Adomeit and Michael McGrath, Louisville; R. J. Sutherland, Bloomfield; Corlis Watkins, Smithfield.

Ohio: Ralph H. Brown, Cincinnati; Marvin Ketring, New Paris; Elton Kile, Pres. Ohio Grain & Feed Dealers Ass'n; Kileville; Russell Milem, Sidney; J. H. Zehr, Pettisville.

Buffalo: G. W. Durant, Continental Grain Co.; H. H. Richardson.

Indiana interior points were represented by S. J. Alexander, Crawfordsville; Dan J. Abolt, Boswell; H. C. Altmansberger, Evansville; Karl R. Applegate, Winamac; W. R. Ankerman, Amboy; Frank Arnold, Shelbyville; Frank Ayers, Pendleton; Chas. A. Anderson, Stockwell; W. H. Aiman, Leroy; W. D. Anderson, Union City.

Charles L. Belles, Hillsboro; R. P. Bailey, Nappanee; Orville Badertscher, Bluffton; R. Butcher, Sharpsville; John Brattain, Sharpsville; Carl Buzan, Cicero; Harold Brown, Brownstown; A. W. Berger, Windfalls; Keith Bundy, Vallonia; C. C. Barnes, Winchester; O. L. Barr, Bicknell; Sim Burk, Decatur; Henry Bowen, Richmond; W. E. Bechold, Yorktown; W. F. Burbank, Fort Wayne; T. G. Beatty, Earl Park; Horace Boyd, Greens Fork; Harry Brewer, Delphi; Ted Barnhardt, Churubusco; John L. Blish, Seymour; Russell Brown, Carlos City; L. E. Baley, Hemlock; Ray Booth, Spencer; C. O. Bertsch, Cambridge City; Avon Burk, Decatur; T. H. Beeson, Crawfordsville; W. R. Beck, Shelbyville.

Clarence Castetter, Fishers; Leon Cheadle, Knox; Kermit Cross, Oakville; Roy Camp, Monticello; K. B. Cook, Zionsville; Elmer Carlton, Gwynsylvia; S. C. Corkins, New Palestine; D. L. Gassaway, Flora; L. C. Compton, Boggsstown; E. E. Clore, Greenwood; Emery Chase, Whitesville; Royal D. Clapp, Columbia City; Frank Clements, Economy; Ross Curtiss, Windfall; Bernard Cody, Westfield; Harry Cooper, Ft. Wayne; Forest Conder, Marion; L. S. Conuroe, Frankfort; Mel Collier, Huntington; Dorwin Cox, Nappanee; Charles Clark, Kempton; John Caldwell, Jr., Marion; D. W. Crutchfield, North Liberty.

James Dewey, Boswell; Lester De Poy, Logansport; Russell Davis, Tipton; Arthur Drysdale, Wilkinson; H. L. Doran, Plymouth; F. A. Dahl, Lowell; C. N. Dannacher, Anderson.

B. E. Etchison, Williamsport; Walter Edwards, Mooresville; Adam Egly, Geneva; M. H. Engle, Fort Wayne; Maurice Edwards, Franklin; Joe Ebert, Michigantown; Earl Evans, Russellville; Kenneth Engley, Dayton.

W. E. and Bernard Funk, Kentland; D. E. Fitzer, Walton; J. E. Francis, LaFayette; Wade Fair, Acton; John Frantz, Frankfort; Roy Fisher, Pittsboro; Harold Ferrin, Carmel; E. R. Fry, Muncie.

Ralph Guenther, LaFayette; Harold Gray, Crawfordsville; M. F. Gilchrist, Peru; Glen Garten, Sims; Theodore Griffith, Clay City; F. R. Garver, Boggsstown; G. D. Gettinger, Carlisle; Charles Gossett, Hemlock; Lucian Garner, Lawrenceburg; J. G. Grubb, Silver Lake.

L. R. Henkle, Greensburg; K. C. Hightshue, New Augusta; Willard Hart, Fort Wayne; Lowell Hutchinson, Arlington; Robert Hartman, Boston; H. S. Hocker, Rockville; Ray Hopewell, Washington; J. M. Holder, Clifford; W. E. Hurst, Alexander; A. N. Hudson, Ketchel; J. W. Hubbard, Monrovia; Glenn Heinbaugh, Liberty; John Hartley, Liberty; E. A. Hirt and Jack Hinken, Greencastle; E. E. Hurt, Monrovia; E. R. Haddin, Oakville; John Hughs, Baileston;

Otto Howe, Greensburg; Vawter Irwin, Madison.

Arvid Johnson, Otterbein; S. W. Johnson, Linton; Lawrence Jordan, Millan; Maurice Johnson, Greenwood; David Jackley, Peru; J. T. Jeffers, Lyons; Earl Johnson, Dunkirk; F. E. Jones, Boswell; Hubert Jackley, Thornton.

J. D. Kiefer, Elwood; W. D. Krueck, Fort Wayne; Elden Kuehl, Valparaiso; Sam Kraus, Fort Wayne; E. J. Kruckeberg, Boston; C. Keys, Fortville; Lloyd Kesler, Ligonier; Lowell Knauff, Mexico; M. E. Kendall, Carmel; Doyle Kibbey, Mathews; R. G. Landis, Waynetown.

R. K. Lindburg, Fort Wayne; William Langdon, Cloverdale; L. E. Lake, Colfax; J. L. Littlefield, LaFayette; J. P. Lantz, Middlebury; Lester Long, Bremen; P. E. Legge, Uniondale; Clifford Langdon, Cloverdale; P. J. Lewis, Elwood; J. E. Lynch, Darlington; Kent Lenzen, Greencastle.

Robert Martin, Greensburg; M. D. Martin, Lafontaine; C. F. Marsh, Fort Wayne; O. E. McCoy, Churubusco; Ivan Mills, Portland; H. E. Miller, Greentown; Stanley Marshall, Rushville; Howard Myers, St. Joe; Floyd Meyers, St. John; K. J. Miller, Pence; H. E. Miller, Greencastle; C. C. Major, Willow Branch; R. L. Mossberg, Warren; Bob Martin, New Paris; V. W. Moore, Kirklin; G. B. McBane, Fortville; Robt. Morris, Evansville; V. R. Morrow, Princeton; George Miller, Peru; Aaron Meeks, Parker City; W. M. Moore, Covington; H. O. Miller, Terre Haute; M. H. Matteson, West Union; L. S. Maddox, Paoli.

Ferd Nail, Milroy; George Neidlinger, Lebanon; W. L. Nordmeyer, Morris.

W. E. Ohlemeyer, Marion; Russell Oatess, Rochester; R. W. Ottinger, Brownsburg.

V. E. Pierce, Moreland; Lyman Peck, Fort Wayne; Walter Penrod, South Whitley; O. B. Price, Knightstown; Herman Peters, Brook.

J. F. Russell, Greensburg; Lloyd Rumsyre, Columbia City; Ralph Richards, Taylorville; Harry Richards, Southport; L. M. Robison, Richmond; C. F. Reeves, Chalottesville; Clyde Ryker, Southport; A. R. Remley, Ladoga; Harry Ramsey, Russellville; L. M. Robertson, Greenwood; Carl Row, Rich Valley; J. R. Robinson, Nappanee; Dick Robertson, Brownstown.

N. R. Shaw, Crawfordsville; J. J. Sonnigsen, Ossian; J. L. Slaughter, Muncie; I. D. Smiley, Wash.; Donald Shaw, Lynn; Frank Sellers, Forest; H. H. Sohn, Columbus; Joe Seabold, Fort Wayne; Victor Stuckey, Berne; V. A. Schindler, Berne; H. J. Sterenberg, Crescent City; A. L. Summe, Burkett; Tom Syler, Plymouth; C. W. Shuman, Logansport; J. D. Swoverland, Rockfield; A. E. Sohn, Columbus; G. R. Straub, Crawfordsville; Don Smith, Cambridge City; Louis Schroer, Seymour; A. H. Strauch, Royal Center.

O. L. Taylor, Brazil; H. G. Tyler, Lowell; O. M. Thomas, Marion; J. B. Todd, Noblesville; J. H. Trimble, Parker; R. F. Thompson, New Market; Bill Thomas, Marion; Floyd Trimble, Zionsville; George Thomas, Fort Wayne; M. A. Thomas, Union City; R. F. Smith, Boswell.

H. M. Unger, Morristown; C. M. Urschel, Tippecanoe.

C. W. Vidal, Terre Haute; Carl Vangundy, Thornhope.

V. C. Walker, Loogootee; William Whitmore, Elwood; L. C. Walker, Washington; D. B. Wilson, Roachdale; Garth Woodward, Tocsin; Paul Walker, Washington; Floyd Wagoner, Waldron; C. T. Wilson, Sulphur Springs; Paul Watson, Prairie Creek; J. R. White, Marion; Russell Wilson, Rochester; M. Worl, Kennard; Jesse Zook, Camden.



Ray B. Bowden, Executive Vice Pres. Grain & Feed Dealers National Ass'n

Monett, Mo., Gets the Corn

The erroneously high ceiling of \$1.195 for corn delivered at Monett, Mo., compared with \$1.16 at Chicago and Peoria allowed the Missouri town to buy several million bushels of corn that normally would have gone elsewhere.

O.P.A. officials denounced as a subterfuge the purchase of corn ostensibly for Monett delivery, but actually for rebilling to other destinations.

One dealer even went so far as to contemplate buying on the Monett quotation without planning to route the corn through that town. His question was answered by the war coarse grain committee of the Kansas City Board of Trade as follows:

"Would it be legal to buy corn in Iowa on the basis of the Monett, Mo., price of \$1.195 and ship it to Monett, stop at Kansas City for storage and to be shipped out later as needed?"

The committee is of the opinion that this practice is not proper. As heretofore advised, corn may be purchased in Iowa on the basis delivered Monett, Mo., at the Monett ceiling price and may be stopped at Kansas City for weights and grades. In order to obtain weights a direct transfer is proper. However, stopping the car for storage in an elevator for an indefinite period goes beyond the intention of the maximum price regulation.

From Abroad

The Eire government will guarantee 55 shillings a sack, (280 pounds) for wheat produced in 1944, to encourage increased production.

Chile has increased wheat acreage to 2,040,000 compared with 1,845,000 acres last season, with the purpose of becoming self-sufficient.

French Morocco estimates wheat production in 1943 at 24.8 million bushels as compared with 26.1 bushels in 1942 and the four year pre-war average of 23.2 million bushels.

The Rumanian wheat crop is so large that to obtain storage space the government requires millers, bakers and others to keep at least a month's supply on hand. Bread rationing has been abolished and white bread is on sale.

Rice production in Ecuador has increased steadily in the past few years. This year's output is estimated at 2,000,000 quintals (101.4 lbs.) compared with 1,649,406 quintals in 1942. Exports were restrained prior to May 3, 1943, but now are permitted freely.

The Argentine Minister of Agriculture has issued estimates of crops a month earlier than usual. The estimates, with the increase over 1942-'43 in parentheses, are: Wheat, 312,316,000 (32.8%); flaxseed, 70,863,000 (18%); oats, 136,168,000 (262.1%); barley, 40,418,000 (151.4%); and rye 55,115,000 bus. (827.8%).

Brazilian flour mills importing wheat must provide storage space for a quantity of grain equivalent to one year's consumption. Millers given 120 days in which to begin construction which must be completed within three years. The measure was considered as necessary to insure uninterrupted operation of mills and to give a better check on flour consumption.

Chile exported 8,566 metric tons of rice in 1942 compared with 3,891 tons in 1941, according to published figures of the Chilean National Foreign Trade Council. The upward trend in exports continued during the first 6 months of 1943 when, according to the above-mentioned source, exports of rice totaled 4,689 tons, compared with 3,512 tons in the corresponding period of 1942.

New Zealand produced 9,821,718 bus. of wheat in 1942-'43, an increase of 1,148,818 bus. over 1941-'42 production.

Nebraska Grain Improvement Gaining

At a series of eight meetings sponsored by the Nebraska Grain & Feed Dealers Ass'n early in January, the Nebraska Grain Improvement program, protein feeds and corn ceilings were topics of most interesting discussions.

Phil Runion, Secretary of the Nebraska Grain & Feed Dealers Ass'n, presided at the meetings, discussed the various services of the organization and emphasized the fact that within the past three years it has tripled in membership. An explanation of corn and wheat ceilings was presented at different meetings by Mr. Runion and Robert Scoular of the Scoular-Bishop Grain Co. of Omaha.

Pure seed of adapted varieties was emphasized as the basis of further grain improvement work by J. C. Swinbank, Secretary of the Nebraska Grain Improvement Ass'n. Speaking with regard to the testing of farmers' samples, Swinbank stated that 60% of the wheat samples tested in 1943 graded "A" or "B" and 94% were varieties rating good to excellent in milling and baking qualities. The necessity of shipping additional supplies of oats and barley seed into areas of abandoned winter wheat was cited as a special opportunity to improve the quality of these crops in these areas.

R. E. Day, division manager of the Allied Mills, Omaha, and J. T. Greenfield, Manager for Sargent & Co. at Superior, appeared at different meetings to explain the workings of the W.P.A. order on the distribution of protein feeds.

The St. Louis & Hannibal Railroad asks leave to abandon 33 miles of road from Hannibal to Bowling Green, Mo.

Grain Stocks on Farms

Washington, D. C.—Grain stocks on farms Jan. 1 are reported by the U.S.D.A. to have included 58,119,000 bus. soybeans, against 88,215,000 bus. Jan. 1, 1943. Latest figures for barley and rye are as of Dec. 1, 177,578,000 and 16,212,000 bus. respectively.

Jan. 1 stocks of wheat, corn and oats were as follows:

	Wheat, Bus.	Corn, Bus.	Oats, Bus.
1944.....	379,121,000	1,996,100,000	709,170,000
1943.....	490,781,000	2,246,592,000	881,542,000
1942.....	372,000,000	2,016,000,000	751,000,000
1941.....	280,840,000	1,837,512,000	795,448,000

Interpretations Under Ceiling Order

Opinions given the Grain & Feed Dealers National Ass'n by the O.P.A. clarify the permissibility of transactions under the ceilings.

If a concern having a main office which sells the corn accumulated in several of its country locations as interior points, it is permissible for such a concern to add a merchandiser's mark-up for carload sales of wheat or corn, if it can be shown that such a merchandiser's mark-up was added in a regular course of the conduct of distinct and segregated branch or unit of the buyer's business. It is important to note that the burden of proof always rests upon the seller to establish such facts by clear evidence.

Section 3 of appendix A of RMPR 487 states "the lowest published domestic carload rail transportation rate." In calculating the maximum price for wheat at interior rail points in area A, the lowest rate must be used. If there are two rates, one lower than the other, it is a condition of the regulation that the lowest rate must be used at all times.

In any order where the wording "rated capacity" of a railroad car is used O.P.A. holds that this means any amount moving in a railroad car for which the railroad has accepted shipment at the carload rate. This clears up somewhat some of the confusion which has existed relative to "rated capacity" where it was impossible, because of the bulk of certain items, to load into the car the full tonnage called for.

Holland, Ia.—The Holland Grain Co. was assessed \$614.61 by the O.P.A. for violating the corn ceiling.

An Unusual Memorial

The cemetery at West Point, Ind., contains a very striking memorial of black granite, on which is inscribed an engraving of the deceased grain dealer's elevator at Upland. The inscription depicts clearly the elevator operated by W. W. Pearson in Upland. The monument is illustrated herewith.

Mr. Warren W. Pearson, after selling his elevator, traveled through the State in the interest of manufacturers of grain elevator equipment, and, naturally he made many friends in the trade throughout the State.

The memorial was designed under Mr. Pearson's personal instructions and erected by his widow after his death.



An Unusual Memorial in Cemetery at West Point, Ind.

Protein Limitation Order No. 9

REVISION No. 3 of Food Production Order No. 9 reads as follows:

PART 1220—FEED

Limitations on Sale, Shipment and Inventories of Protein Meal and on Use of Soybean Products

Section 1220.2 is hereby revised and amended in its entirety to read as follows:

Sec. 1220.2 **Limitations on sale, shipment and inventories of protein meal and on use of soybean products.** (a) **Set-aside requirement.** Any processor shall when so ordered by the Director of Food Production, War Food Administration (hereinafter referred to as the "Director"), set aside, for sale and delivery to such agency or other person or into such area as the Director may designate, such quantity of protein meal as the Director may specify.

(b) **Restrictions on shipments into designated areas.** The Director may, from time to time, prohibit or limit the shipment or delivery of any kind of protein meal into any area that he may designate. No person shall make or accept any shipment or delivery of protein meal in violation of any order issued by the Director pursuant to the authority granted by this paragraph.

(c) **Limitation on delivery of protein meal by handlers.** Whenever he deems it necessary to obtain an equitable distribution of protein meal in any area, the Director may limit the quantity of protein meal which any class of handlers within such area may deliver to feeders during any part of the feeding year.

(d) **Limitations on mixed feed manufacturers.** During the 1944 calendar year, no mixed feed manufacturer shall use any quantity of protein meal in the manufacture of mixed feeds, which is in excess of the average quantity of protein meal used by him in the manufacture of mixed feeds during the calendar years 1942 and 1943, and in determining the average quantity of protein meal used by a mixed feed manufacturer in 1942 and 1943, the quantity to be considered as used in December, 1943, shall be the average of the quantities used by him in October and November, 1943. Whenever he deems it necessary to obtain such distribution of protein meal as will be equitable among mixed feed manufacturers, handlers and feeders, the Director may limit the quantity of protein meal which any mixed feed manufacturer may use in the manufacture of mixed feeds during any part of the feeding year.

(e) **Limitations on protein processors.** Whenever he deems it necessary to obtain such distribution of protein meal as will be equitable among persons who purchase protein meal from processors, the Director may limit the quantity of protein meal which any processor may deliver to any class of buyers during any part of the feeding year.

(f) **Prohibition on sale, purchase and use of soybean products, other than soybean meal, cake or pellets for feed.** No person shall sell or deliver and no person shall purchase or accept delivery of soya flour, grits or similar edible products of soybeans, other than soybean meal, cake or pellets, for use as or manufacture into feed for livestock and poultry, and no such products shall be used as or manufactured into feed for livestock and poultry.

(g) **Inventory limitations.** (1) No person shall accept delivery of any protein meal which, together with his inventory of protein meal, would exceed the total tonnage of protein meal needed by such person to fill his manufacturing, sales or feeding requirements, as follows:

(i) Season's requirements for fish meal;

(ii) Sixty days' requirements for tankage and meat scraps; and

(iii) Thirty days' requirements for all other protein meal;

Except that—

(a) Any handler or mixed feed manufacturer may accept delivery of a single carload lot (as determined under regulations of the Office of Defense Transportation) of any protein meal if individual deliveries of carload lots are not made more frequently than similar deliveries to such person in the past;

(b) Any feeder may accept delivery at any one time of not to exceed 2,000 pounds of any protein meal if individual deliveries are not made more frequently than similar deliveries to such person in the past; and

(c) Any ranchman may accept delivery of protein meal in such amounts as are necessary to provide a readily available supply of protein meal for ranch feeding purposes and to make the most economical use of transportation facilities under regulations issued by the Office of Defense Transportation.

(2) The Director may prohibit any processor from building up an inventory of protein meal in excess of either the quantity produced by him during the last 15 days in which he produced protein meal or his inventory of protein

meal on the corresponding day of the feeding year 1941-42, whichever is greater.

(h) **Limitations on deliveries.** No person shall deliver protein meal to any person unless the person to whom delivery is to be made tenders at or before the time of delivery a signed statement in substantially the following form:

The undersigned declares to his vendor and to the War Food Administration that he is familiar with the provisions of Food Production Order No. 9, Revision No. 3, and that this purchase, acquisition, or acceptance of protein meal from such vendor is in compliance with the provisions of such order.

Purchaser

Address

Date

Except that no signed statement shall be required from a feeder unless pursuant to an order issued by the Director.

(i) **Existing contracts.** The restrictions imposed by this order shall be effective without regard to the rights of creditors, existing contracts or payments made.

(j) **Audits and inspections.** The Director shall be entitled to make such audit or inspection of the books, records and other writings, or the premises or stocks of protein meal, of any person, and make such investigations, as may be necessary or appropriate, to the enforcement or administration of the provisions of this order.

(k) **Records and reports.** Every person subject to this order shall maintain for not less than two years accurate records concerning his monthly production, sales, purchases, contracts for sale or purchase, deliveries and shipment of protein meal and mixed feed. Any person receiving statements pursuant to paragraph (h) shall retain such statements on file for not less than two years. The Director may require the keeping of such other records and the furnishing of such reports as may be necessary or appropriate to the enforcement or administration of this order. (The record keeping requirements of this paragraph have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942. Subsequent record keeping and reporting requirements are subject to the approval of the Bureau of the Budget in accordance with the Federal Reports Act of 1942.)

(l) **Petition for relief from hardship.** Any person affected by this order who considers that compliance with this order would work an exceptional and unreasonable hardship on him may apply in writing for relief to the Director, setting forth in such petition all pertinent facts and the relief sought. The Director, upon the basis of such application and other information, may take such action as he deems appropriate. The decision of the Director shall be in writing and shall be final and conclusive.

(m) **Penalties for violations.** Any person who willfully violates any provision of this order or who, in connection with this order, willfully conceals a material fact or furnishes false information to any department or agency of the United States, or who conspires with another person to perform any of such acts, is guilty of a crime and upon conviction may be punished by fine and imprisonment. In addition, any such person, by administrative suspension order, may be prohibited from receiving any deliveries of, or selling or otherwise disposing of, or using, protein meal or any other material now or hereafter authorized to be rationed or allocated by, or subject to the priority control of, the War Food Administrator, and may be deprived of any priority assistance. Further, the Director may recommend to the Office of Price Administration or to the War Production Board that any person who violates any provision of this order or any amendment or supplement thereto be denied the right to receive, use, sell, or otherwise dispose of any other materials which now are or in the future may be under allocation.

(n) **Delegation of authority.** The administration of this order and the powers vested in the War Food Administrator, in so far as such powers relate to the administration of this order, are hereby delegated to the Director. The Director is authorized to redelegate to any person within the War Food Administration any or all of the authority vested in him by this order.

(o) **Orders of the Director.** Any order or direction issued by the Director under the authority of Food Production Order No. 9, Revision No. 2 (8 F. R. 13363), in so far as such order or direction is not incompatible with or in conflict with this order, shall continue in full force and effect.

(p) **Communications.** All reports required to be filed hereunder and all communications concerning this order shall, unless instructions to the contrary are issued, be addressed to the

Director of Food Production, War Food Administration, Washington 25, D. C., Ref. FPO 9.

(q) **Definitions.** For the purposes of this order:

(1) "Protein meal" means tankage, meat scrap, liver meal, fish meal, whale guano, corn gluten meal, and cake, meal or pellets derived from cottonseed, soybeans, peanuts, flaxseed, copra, sesame, babassu, uricury, and palm kernel.

(2) "Feeding year" means the period from Oct. 1 to Sept. 30.

(3) "Person" means any individual, partnership, corporation, association, business trust, or any organized group of persons, whether incorporated or not, including the states of the United States, their political subdivisions and agencies.

(4) "Feeder" means any person who acquires protein meal for feeding livestock or poultry.

(5) "Processor" means any person operating a processing plant for producing any protein meal, and includes any person who grinds protein cake into meal, sized cake, or pellets, for sale as such or for use in the manufacture of feed.

(6) "Handler" means any person other than a processor, feeder or mixed feed manufacturer, engaged in the business of buying or selling protein meal.

(7) "Mixed feed manufacturer" means any person who uses protein meal in the manufacture of mixed feed for sale.

(8) "Mixed feed" means any feed manufactured for sale for the feeding of livestock or poultry, which contains, among other ingredients, protein meal.

MARVIN JONES, War Food Administrator.

Hastings, Neb.—The complaint by the O.P.A. against the Bertrand Co-operative Exchange for alleged violation of the corn ceiling will be heard at the March term of the federal court. Judge Delehant denied the government a temporary injunction. The court said: "I cannot agree that there is sense, rhyme or reason in allowing one farmer to haul his corn 15 miles to the elevator where he receives the 92-cent ceiling and allowing another farmer to receive 92 cents, 89½ under recent amendment, on his farm. We are told 2 cents was a reasonable shelling charge and that transportation cost something."

Grain Contracts with Farmers

Form 10 D. C. is recognized as the best for contracting grain and seed from farmers, and is in extensive use by grain dealers. Do not take chances with verbal contracts. They lead to misunderstandings, differences and disputes, as well as loss of profits and customers. Contract certifies that farmer:

"has sold.....bushels of.....at..... cents per bushel, to grade No....., to be delivered at.....on or before....." It also certifies that, "if inferior grain is delivered, the market difference at which such grain is selling on day of delivery shall be deducted. Any extension of time at buyer's option."

Originals are printed on bond paper, machine perforated so they may be easily removed; duplicates are of manila. All have spaces ruled on the back for recording each load delivered on the contract. Check bound, size 5½x8½ inches, 100 sets numbered in duplicate and supplied with 4 sheets of carbon paper. Order Form 10 DC Improved. Price \$1.20, f. o. b. Chicago. Wt. 1 lb.

Triplating book is same as 10 DC and contains 100 additional copies of the contract printed on strong tissue and 4 sheets of dual faced carbon. Order Form 10 TC. Price \$1.50, f. o. b. Chicago. Weight, 21 ozs.

Grain & Feed Journals

Consolidated

327 S. La Salle St.

Chicago 4, Ill.

New Varieties of Wheat

By DR. JOHN H. PARKER, Director, Kansas Wheat Improvement Assn

Those of us who are engaged in crop improvement work sponsored by the milling industry and grain trade are not directly concerned with plant breeding research, rather is it our duty to see that the fruits of this research are wisely, promptly, and profitably used in agriculture and industry. It is a proper part of our job to help federal and state experiment station plant breeders, agronomists, cereal chemists and directors of research to understand the needs of the trade as to the quality of new varieties being bred, tested and considered for distribution. It is an equally important part of our job to make it clear to grain dealers who like to handle Chiefkan wheat because of its heavy test weight, that millers do not want this wheat because bakers will not buy flour milled from it. We must help hard wheat millers to understand that altho they may like the quality of Turkey wheat better than any other variety of hard red winter wheat, we cannot urge Kansas farmers to grow Turkey if Tenmarq, Pawnee and Comanche yield more, as they do. Neither can we recommend the soft wheat miller's old favorites, Harvest Queen and Currell to farmers in eastern Kansas, if the newer variety, Clarkan, produces higher yields and has heavier test weight, as it does. Plant breeders need to consider industrial needs even before crosses are made. To meet certain needs, wide crosses are necessary, as for example, the use of durum wheat and emmer to introduce factors for stem rust resistance into bread wheat, the use of poor quality bread wheats from New Zealand to produce high quality spring wheats resistant to saw-fly and well adapted in the prairie provinces of Canada, or to take an extreme case, crosses of wheat and rye to transfer the winter-hardiness of rye to winter wheat.

When new wheat varieties appear promising enough to be tested in field plots at the main experiment station, at branch stations, or regional experimental fields and in cooperative variety tests on farms, samples should be sent to official grain inspectors for grading. These promising selections should be milled, baked and subjected to other quality tests not only in state and federal laboratories, but also in mill, bakery and commercial laboratories, *before* they are increased or approved for distribution.

An attempt was made to produce an early ripening, high quality, hard winter wheat by crossing Early Blackhull and Tenmarq. A selection from this cross now being tested in Kansas, Oklahoma and Texas is almost as early as Early Blackhull, yields well and produces grain of heavy test weight that is much superior to Early Blackhull in milling and baking qualities. This selection will probably be named Wichita. Although its quality is not equal to Tenmarq it is an improvement over Early Blackhull and if distributed is likely to replace much of the acreage of this poor quality variety.

THIS KANSAS selection and the new Austin soft wheat produced at the Texas station by crossing Hope spring wheat with Mediterranean winter wheat represent steps of progress, but are not considered as the ultimate goals. In his paper on "New Varieties of Wheat for Texas," presented at a meeting of cereal chemists at Dallas, F. T. Dines, Director, Texas Wheat Improvement Ass'n, states that "Austin is not a high quality soft wheat and probably should be called an intermediate quality of wheat that is not more than just satisfactory for the purpose for which soft wheat is used in Texas mills."

Referring to the selection of Early Blackhull Tenmarq, Dines says, "this new variety is by no means superior to all others but is purely a 'weapon' that is being used against the poor quality Early Blackhull." "This selection has only intermediate quality but has been

accepted by cereal chemists as being satisfactory, particularly in the north Texas areas from which most of the wheat is used in family flour trade."

When new varieties are distributed and first described in publications, statements should be frank and factual, mentioning weak points as well as desirable characteristics of the new variety. The following paragraphs on milling and baking characteristics of Comanche and Pawnee are quoted from Kansas Agr. Exp. Sta. Bulletin No. 319, July, 1943, by L. P. Reitz and H. H. Laude:

COMANCHE has been tested for milling and baking characteristics in the Department of Milling Industry and the Federal Hard Winter Wheat Quality Laboratory at Manhattan and in a few commercial laboratories. It has given satisfactory results in milling and baking tests conducted on several crops. In general terms it appears to be equal to Tenmarq. Comanche has produced high yields of flour and large loaves of bread. The flour milled from Comanche has been similar to that from Tenmarq, being about the same in ash content and of a creamy white color. Dough made from Comanche flour requires a longer mixing time than that from Turkey or Tenmarq for full development. The gluten appears to be strong, capable of making loaves of large volume, and requires rather long mixing for full development, which indicates that Comanche may enter the trade channels where Tenmarq, Turkey and other strong wheats are required.

PAWNEE has been tested for wheat and flour quality by the Department of Milling Industry and the Federal Hard Winter Wheat Quality Laboratory at Manhattan and in a few commercial laboratories. It has produced good yields of low ash flour of creamy white color, superior to Turkey and Kharkov in appearance. No objectionable features have appeared in the milling tests conducted on Pawnee; in general it appears equal to Turkey or Kharkov and superior to Blackhull.

Loaf volume is the most widely used single measure of gluten strength in bread wheats. In general, flours capable of producing large loaves with good texture and color of crumb are readily accepted in the trade for bread-making purposes. Loaf volumes produced under similar conditions from the same amount of flour are given for a number of varieties. In each case Pawnee exceeded Early Blackhull and Chiefkan, and seemed to vary around the volumes produced by Comanche, Tenmarq, Blackhull and Kharkov or Turkey. Good texture and color of crumbs have been produced by Pawnee in these tests.

The dough characteristics of Pawnee are different from Tenmarq and Comanche; Pawnee dough develops more rapidly upon mixing and is more pliable. Its dough-mixing time approximates that of Blackhull, but is shorter than Tenmarq and Comanche. Dough from Pawnee flour can be classified with that from Blackhull as pliable, in contrast to the dough from Tenmarq, which sometimes tends to be bucky, and to the soft or less elastic type of dough from Chiefkan. The baking strength of the gluten of Pawnee is equal to or greater than Blackhull and appears suitable for general market use.

These statements are frank and factual. Millers, cereal chemists and bakers will profit by knowing that Comanche and Pawnee differ from the old Turkey, and from each other, in gluten strength.

According to Dines, "Pawnee is not being recommended in Texas primarily because it shatters very badly ———, altho under conditions when the variety is harvested before shattering takes place extremely satisfactory yields are realized and the grain had good milling and baking properties."

Referring to Comanche, Dines writes, "in all truthfulness it must be stated that over a period of years and under widespread conditions, this variety does not average as well in test weight as Chiefkan." Such frank statements of defects of new varieties are much better made than withheld. Farmers, grain dealers and millers will soon learn of them and throw them back at us, if we don't ourselves discover and admit them.

IN DISTRIBUTING the first lots of certified seed of Comanche and Pawnee wheat in Kansas in the fall of 1943, the Kansas station and the Kansas Crop Improvement Station adopted a clear-cut policy as to regional recommendation of these varieties in Kansas. Seed of Comanche wheat was allotted only to farmers in western Kansas. Seed of Pawnee was placed only with farmers in central and north-eastern Kansas. There are several good reasons for this policy. Comanche is very susceptible to Hessian fly and hence is not recommended in eastern Kansas where fly is a serious limiting factor in wheat production.

Pawnee is resistant to fly in central Kansas, less resistant to fly in S. E. Kansas, an area naturally adapted to soft wheat because of its low elevation and high rainfall. Pawnee is apt to shatter in the dry land areas of Western Kansas and is therefore not recommended there.

These recommendations are sound as to quality considerations as well as with reference to field characteristics. Pawnee, a mellow gluten wheat, is recommended on the older soils of eastern Kansas, in the region with heavier rainfall and lower altitude than in western Kansas.

COMANCHE, a strong gluten wheat, is recommended on the newer soils of western Kansas, at higher elevations, where rainfall is less. It is common knowledge that western Kansas wheat has higher average protein content than wheat grown in eastern Kansas. Kansas agronomists have wisely decided to make their recommendations of these new varieties fit in with the ecological conditions long established by Nature. These recommendations are also in agreement with the present trade understanding of sources of wheat of medium and high protein content.

Millers wanting strong gluten* wheat for blending with weaker wheats, or for milling flour to be used for hard rolls or in open hearth baking, can get Comanche wheat in quantity from western Kansas. Millers wanting a mellow or pliable gluten wheat of lower protein content to mill flour suitable for twist bread and general use in baking, can get Pawnee in quantity in east-central Kansas. By judicious blending of Pawnee and Comanche wheats, grain buyers and skilful millers should be able to make mill mixes adapted to a rather wide range of customer needs and preferences.

CLARKAN soft winter wheat is recommended in S. E. Kansas. This variety is not a perfect soft wheat, but it is vastly superior to Kawvale, a semi-hard wheat that is wrongly classed as a soft wheat under the federal grain grades. The high susceptibility of Clarkan to loose smut is one of the chief objections that farmers have to this variety. In spite of its heavy test weight, flour yields of Clarkan are not what they should be. This defect is well known to soft wheat millers.

The Kansas Wheat Improvement Ass'n works in close co-operation with Kansas State College and with the Kansas Crop Improvement Ass'n. We have set our goal to have more million acres and more million bushels of Pawnee and Comanche wheat in fewer years than of any new varieties previously distributed in Kansas. It is conservatively estimated that Hessian fly reduced the Kansas wheat crop from a potential production of 175 million bushels, to the crop of 150 million bushels that was harvested. Pawnee wheat, because of its fly resistance, will reduce these losses. Hence it is our job and our opportunity to help get maximum acreage of this high yielding variety in minimum time.

Use of Screenings for Feed

O. A. STEVENS, Associate Botanist, No. Dak. Agr. Exp. Sta.

Weed seeds and material other than grain in screenings may have considerable value as feed for livestock, or they may be poor or actually injurious, depending upon the nature of the material. Mustards in general are undesirable and likely to be injurious if present in considerable quantity. Ergot, a diseased condition of grain found mainly in rye, but sometimes common in wheat, is likely to cause serious illness if it is present in excess of 1 or 2 per cent.

Weed seeds are as diverse in character as are wheat, flax and castor beans. Some are readily utilized, others only with difficulty. Feeding trials with sheep at the experiment station in 1923-25 showed that wild oats of good weight were about equal in value to common oats, and that pigeon grass seed could be substituted for barley up to two-fifths of the total of the concentrate ration, without decreasing the gain in weight of the animals.

But quality of weed seeds is even more variable than that of cultivated crops. Wild oats and pigeon grass both shatter readily at maturity. Much of the seed of these plants which is threshed with the grain was immature at time of cutting, therefore, is light in weight, has a high proportion of hull and low feed value. The actual grain of wild buckwheat is similar in composition to that of wheat but it has a thick, hard shell, and much seed as threshed is light in weight. Wild oats, pigeon grass and wild buckwheat often make up the larger part of grain screenings. Ground kinghead seed appeared somewhat unpalatable but when fed as two-fifths of the concentrate ration, it seemed nearly as valuable as barley.

North Dakota grown small grains, especially wheat, will average higher in crude protein, wheat about 14 per cent and oats and barley proportionately higher; their nitrogen-free extract content will be correspondingly reduced. By nitrogen free extract is meant, in general, the starches and sugars in the seeds; by ether extract is meant, in general, the fats and oils in the seeds.

Small, black seeds, not larger than a pin head, frequently comprise a considerable bulk of screenings. These are usually lambsquarters, sometimes pigweed or other seeds. In general, the small seeds are likely not to be utilized as feed, except by sheep. Even when screenings are ground, many of these hard black seeds are not broken up. We have commonly recommended that if screenings are to be used for feed, these small seeds should first be cleaned out and burned. If material containing them is fed, most of these weed seeds will be left in the manure. Such manure should be thoroughly composted to kill the weed seeds before it is spread on fields.

Some weed seeds may be injurious. Occasional cases are reported where the use of screenings has been suspected to have been the cause of illness or loss of livestock. It has not been possible to establish screenings as the cause in these cases, but frequently screenings contain a large amount of mustards which would at least be unsafe to use for feed.

Recently, a sample was received with an inquiry about its availability for feed. This was analyzed for kinds of seeds and will illustrate some things about the diverse nature of such material.

Chaff	30 per cent
Grain, mostly wheat	41
Mustards	16
Lambsquarters	8
Other weed seeds	5

In this case, the mustard was mostly hare's-ear mustard. If the material were screened to remove the undesirable mustards, nearly one-half of the grain (broken wheat) would also be removed. The amount of time required to make such an analysis is too large for the Experiment Station to carry out except in special cases.

Chemical analysis is also not practical. It would require much time and in some cases, would show apparently high values, as in the case of mustards or other seeds which cannot be utilized. Mustards, for example, contain irritating oils which make them undesirable. Some seeds are very unpalatable and this is not shown by chemical analysis. A further difficulty for either sort of analysis, is that of securing a representative sample.

Another sample analyzed a few years ago contained:

Wild buckwheat	40.2 per cent
Broken wheat	30.0
Mustard	3.8
Other weed seeds	22.0
Chaff	3.8

This sample should be relatively high in value because the mustard seed content is low, with wheat and wild buckwheat making up the 70 per cent of the total weight. Still another sample contained the following:

Wild buckwheat	35.4
Hare's-ear mustard	13.1
Frenchweed	12.1
Wheat	6.6
Lambsquarters	9.9
Green pigeongrass	9.4
Wild Oats	4.1
Other weed seeds .....	.8
Chaff	8.6

This, again, would be undesirable because of the large amounts of Frenchweed and hare's-ear mustard. As will be noted, it also had very little grain in it.

Weight is usually a good index of value, especially when such seeds as wild oats, pigeon grass and wild buckwheat are concerned. It may be pointed out, however, that pigweed seed is especially heavy. We found that mature, clean pigweed seed weighed as much as the best wheat. The seeds of lambsquarters are retained in the flower parts unless these are rubbed off, but pigweed seeds always shatter out easily.

An estimate of the composition of a sample of screenings could best be made by fanning out the chaff—the old fashioned winnowing by pouring from one pan to another in a light wind is sufficient—and running it over about a 10-mesh screen to remove small seeds. This will show the amount and nature of the small, undesirable seeds.

Some materials in screenings occasionally have commercial value for other purposes. Ergot is a standard source of drug materials and when any quantity of suitable quality occurs, it will be worthwhile to re-clean it from the screenings for sale for this purpose. A sample should first be submitted to a wholesale drug firm for an estimate on its value.

Mustard seed has market value but only for certain kinds and screenings usually contain a mixture of different kinds. The one which occurs in North Dakota which is chiefly in demand is Indian Mustard (*Brassica juncea*). This is a round, but slightly irregular, reddish-brown seed, which shows a fine network of raised lines when examined with a magnifying glass. Seeds of charlock, also called "Common, Field or Yellow" mustard (*Brassica arvensis*) are more evenly rounded, smooth and black, unless immature, when they are red. This is not in demand and the two are usually mixed together in screenings.

Total employment, including all men and women in military service declined in November for the second successive month, with further reductions indicated for December. The reduction of 1.2 million in the total number at work or in uniform in November was attributable in the main to the curtailment of farm operations at the close of fall harvesting, but civilian non-agricultural employment also receded by about 100,000 during the month and was below the corresponding total for November, 1942, by almost the same amount.—National Industrial Conference Board.

Wheat ground by mills reporting the Bureau of the Census amounted to 225,834,687 bus. during the 5 months prior to Dec. 1, against 217,956,501 bus. during the like months of 1942.

Grain Shipping Books

Railroad Claim Blanks duplicating, three different books, five forms, 8½x 11 in., \$2.25 each book, plus postage.

Shipping Notices duplicating, 50 originals of bond paper, 50 duplicates, press board cover, 5½x8½ inches, weight 8 ozs.; 2 sheets of carbon. Order 3SN. Single copy 75 cts.; three copies \$2.00, plus postage.

Shippers' Certificate of Weight duplicating, 75 originals of bond paper, 75 duplicates. Press board hinged back covers, three sheets of carbon, 4½x9¾ inches, weight 11 ozs. Order 89SWC. Single copy \$1.00; three copies \$2.75, plus postage.

Grain Shipping Ledger for keeping a complete record of 4,000 carloads. Facing pages are given to each firm to whom you ship and account is indexed. Book contains 80 double pages of ledger paper with 16-page index, size 10½x15¾ inches, well bound with black cloth covers and keratol back and corners. Weight, 4 lbs. Order Form 24. Price, \$3.85, plus postage.

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Grain and Feed Trade News

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ARKANSAS

Hope, Ark.—The Hempstead County Supply Ass'n, a farm buro co-operative, has been organized, authorized to do business in the production, harvesting, processing, marketing and distribution of agricultural products. It listed 15,000 shares of capital stock, including 5,000 shares of common stock at \$1 par value, and 10,000 shares of preferred stock at \$10 par value.—P. J. P.

Stuttgart, Ark.—At a meeting of stockholders of the Producers' Rice Mill, recently organized, Verne Tindall, pres., presided and outlined operations of the mill since it opened this season. He stated that the mill was purchased for approximately \$150,000 and preferred stock was issued for \$165,700. All obligations have been met, he said, and total assets amounted to \$626,093, including stock on hand. Stockholders received 100 per cent valuation on their rice with a total of about \$80,000 distributed.—J. H. G.

Bradford, Ark.—Troy Campbell, 51, in the feed and lumber business here for the past four years, was killed instantly Jan. 12 when his truck, loaded with cottonseed meal, was struck by a northbound Missouri Pacific passenger train at the crossing in north Bradford. Frost is believed to have covered the windows of the cab of the truck, preventing Campbell from seeing the oncoming train. The truck was completely demolished and burning gasoline from its tank severely burned the engineer and fireman of the train.—P. J. P.

CALIFORNIA

Pomona, Cal.—The mill and warehouse of the Bell Grain & Milling Co. was damaged badly by fire Jan. 6, the loss estimated at \$70,000 by Bruce Bell, owner.

Sacramento, Cal.—At the end of December there were 411 grain warehouses registered in California for the fiscal year to June 30, 1944.—W. J. Cecil, director State Department of Agriculture.

Sacramento, Cal.—At the request of the War Food Administration and the O.D.T. we have recently assigned a considerable number of ocean-going vessels for the transportation of wheat from Vancouver to California ports. Something in excess of 11 such vessels are now engaged in this movement. Estimates, which are subject to variations due to possible demands of the military, indicate that during the five weeks from Dec. 25 thru the month of January, 1944, we will lift a total of 150,000 tons of wheat. The movement which started in mid-October will average, for the three and one-half month period, a total of 60,000 tons per month of approximately 3,000,000 bus. per month.—E. S. Land, Adm., War Shipping Adm.

CANADA

Kingsclear, N. B.—John M. McIntosh, 79, died recently after a week's illness. For over 40 years he had been a grain miller here.—W. Mc.

St. John, N. B.—Poultry raisers of eastern Canada claim the record high prices and scarcity of poultry and eggs are due to high prices and shortage of feed grain. The high cost of transportation of the grain from the western provinces plays a vital role in the grain price in the east. Rail congestion is also delaying eastern grain distribution.—W.M.C.

St. John, N. B.—For the quarter ending Jan. 31, 1944, the St. Lawrence Flour Mills Co. has declared a dividend of 35 cents per share on no par value common shares and 1.75 per cent on the preferred shares of the company. The dividend being payable Feb. 2, to stockholders of record on Dec. 31.—W.M.C.

Ottawa, Ont.—Storage charges allowed in country elevators on wheat and flax recently have been adjusted to one-sixtieth cent a bushel per day retroactive to last Sept. 28, 1943, and to remain in effect until the end of the crop year, July 31, Trade Minister MacKinnon announced. This is a reduction from one-fiftieth cent per day heretofore in effect. The reduced storage rates will not apply on wheat and flax in terminal elevators.

Halifax, N. S.—Port officials have disclosed that a record volume of passenger transportation by rail into and out of Halifax, created a delay in the movement of grain stocks into Halifax by rail and out of that port by steamers for the British Isles. Freight trains were retarded greatly because of the heavy movement of passengers, and with result that some grain steamers had to postpone departures from Halifax for several days beyond the scheduled leaveings.—W. Mc.

St. John, N. B.—Local newspapers are editorially complaining that St. John, as an ocean port, is being discriminated against in favor of Halifax, N. S., in grain shipping rates. It is being cited that the cost to a flour miller in western Ontario or Manitoba, of shipping a barrel of flour destined for the British Isles, just as much to deliver the barrel at St. John as at Halifax. This, altho Halifax is about 300 miles beyond St. John to the east. It is claimed that this constitutes discrimination against St. John.—W. Mc.

COLORADO

Antonito, Colo.—Nathan Yeakley, owner of the Antonito Mill & Elevator Co., stated the flour mill which burned recently will be rebuilt at an early date.

Peetz, Colo.—The Farmers Co-op. Elevator Co. has hired Clarence McNeil of Imperial, Neb., as manager of the elevator, to succeed the late George Drescher.

Denver, Colo.—The S.E.C. has withdrawn a stop order against Colorado Milling & Elevator Co. and permitted the company's registration of 70,000 shares of \$3 n.p.v. cumulative convertible preferred stock to become effective.

ILLINOIS

Table Grove, Ill.—The Farmers Elevator office has been redecorated and the elevator has been given a general cleaning up.

Charleston, Ill.—John Whalen, 77, for many years a partner in the Whalen Bros. Elevator Co. until he retired from business in 1940, died Jan. 6.

New Athens, Ill.—The mill equipment in the local elevator of the Lenzburg Farmers Co-operative Grain Co., has been sold and is being dismantled for shipment.

Flora, Ill.—Scudamore Bros. have taken over the full retail business of distributing feed for Frank Downard. Mr. Downard, who has handled the retail feed business here for 14 years, will continue to wholesale Downard's feeds from his residence.—P. J. P.

Sumner, Ill.—Merlin Atkins has sold the Sumner Milling Co. to Owen Groff.

Neponset, Ill.—Melvin Orlando Scott, 88, at one time manager of the Farmers Elevator and former postmaster, died recently.

Mt. Carmel, Ill.—L. E. Meyer & Sons of Bellmont, Ill., have purchased the old Snider catsup plant here and will conduct a feed and implement business in the building.—J. R. M.

Fairbury, Ill.—Honeggers Feed Mill has acquired the Van Horne Elevator directly across the street from the mill, and will use it for storage purposes and also plan on installing a corn drier.

Morris, Ill.—Allied Grain Dealers Corp. elevators at Morris and Seneca shipped a total of 3,375,480 bus. of grain over the Illinois River in 1943, equalling those of 1942. Of the amount the Seneca plant shipped a total of 2,617,053 bus.

Chenoa, Ill.—Charles E. Koerner, 65, was found dead in a chair at the Chenoa Grain Co. where he was an employee, the morning of Jan. 1. He had gone to the elevator to load a car of grain and apparently had left his work to go to the office.

Fairbury, Ill.—Emil Schiltz has purchased the interest of John Meister in the Corn Belt Elevator. He has been employed at the elevator for some time. Mr. Meister has operated the elevator for 22 years, in 1935 selling a half interest to Eli Leman.

Manlius, Ill.—Paul Andrews, manager of the Manlius Grain & Coal Co., elevator, while assisting a carpenter recently at the plant, lost his balance and fell about six feet from the scaffolding, breaking his left arm and receiving minor injuries and bruises.

Dry Grove (Bloomington P. O.), Ill.—The Danvers Farmers Elevator Co. purchased the elevator and equipment of the Dry Grove Farmers Grain Co. and will operate it as an outside station. It now operates elevators at Stuckeys Siding and Woodruff as well as at Danvers.

Decatur, Ill.—James H. Sims of Blue Mound sustained injuries while working at the Decatur Milling Co. plant the night of Dec. 31 that necessitated the amputation of one of his feet. He was one of a corn loading crew at the plant when the accident occurred.—P. J. P.

Forrest, Ill.—The Honegger firm presented each of its 63 employees a \$1,000 life insurance policy, a sick and accident policy and one for hospitalization in addition to a gift of war savings stamps for Christmas. The firm operates feed mills and offices here and at Fairbury and a hatchery, dairy and poultry farm here.

Springfield, Ill.—The Transportation Club gave a farewell dinner Jan. 12 at the Abraham Lincoln Hotel for A. C. Grimm, past president of the club who on Jan. 17 took over new duties as assistant general traffic manager of the Pillsbury Flour Mills Co. at Minneapolis. For 13 years he had been traffic manager of the local mill.—P. J. P.

Heyworth, Ill.—Lafe Van Wye, an employee of the Hasenwinkle-Scholer Grain Co. near here, was injured Jan. 3 when he fell from a loaded box car which was being moved away from the elevator loading spout. At St. Joseph's Hospital in Bloomington where he was taken it was found he had fractures of the right arm and right ankle.—P. J. P.

Woodhull, Ill.—Murriel Lindquist, who has served as elevator man at the Woodhull Grain Elevator Co. elevator, has resigned. George Bloomberg, who has been employed at the elevator as manager the past 12 years, recently was renamed to that position for another year. The company will hold its annual banquet for stockholders at the Presbyterian Church Feb. 12.

Peoria, Ill.—The program for the Farmers Grain Dealers Ass'n of Illinois annual convention to be held at the Pere Marquette Hotel Feb. 1 and 2 as announced will prove of special interest and importance to all grain and feed dealers. A large attendance is expected because of the timely subjects to be discussed and their vital interest to the grain and feed industries.

Chapin, Ill.—The Harold Perbix elevator burned Jan. 17, the fire destroying 15,000 bus. of corn. The blaze, discovered at 5:30 a. m. near the top of the elevator building, swept out of control of volunteer firemen. Jacksonville firemen, summoned, saved nearby buildings, the office with its records being saved. A shed which housed elevator machinery, however, burned. The loss was covered partly by insurance Mr. Perbix stated.

Jerseyville, Ill.—Van Hodges, for the last several years with Waggoner-Gates Milling Co., Independence, Mo., has joined the Standard-Tilton Division of Russell-Miller Milling Co., Alton, and will be placed in charge of the company's feed mill and elevator operations here. Mr. Hodges for several years before joining the Waggoner-Gates Co. was with the Inland Milling Co., Des Moines. Prior to that he was with Standard Milling Co. in Kansas City. He will live in Alton.

Casey, Ill.—Frank Richardson representing associates, recently appeared before the city council, interested in the purchase of city land west of the ice plant and the Texaco bulk plant, on which to erect a proposed reinforced concrete grain elevator of large capacity. Mr. Richardson stated that his organization was under way and planned to create a corporation and offer stock for sale. Such a plant, it was pointed out, would be a great convenience to farmers for miles around.

CHICAGO NOTES

Edward Johann, a member of the Board of Trade, died Jan. 23, in Wesleyan Memorial Hospital.

Charles Van Horssen of General Mills, Inc., is the new president of the Chicago Feed Club, taking office at the January meeting.

Frank E. Carlson, known to his many friends in the grain trade as "Slim," is now identified with the Underwriters Grain Ass'n at Chicago as inspector, entering on his new duties Jan. 10. Mr. Carlson formerly was a millwright for 20 years with the Russell-Miller Milling Co. at their Occident elevator in Duluth, Minn.

Chris Peterson, 62, broker and a member of the Board of Trade for 35 years, died Jan. 14 in Swedish Covenant Hospital after a brief illness.

Fred H. Clutton, sec'y, and Wm. B. Bosworth, assistant sec'y, have been reappointed for another year by the directors of the Board of Trade.

The following were named to serve on the Grain Com'te of the Chicago Board of Trade for the ensuing year: E. M. Combs, Jr., C. E. Bostrom, Wm. Enke, Jr., J. O. McClintock, G. W. Hales, W. H. McDonald, E. R. Bacon, Jr., Frank Haines, L. D. Godfrey, K. B. Pierce. Appointments to the Business Conduct Com'te were: C. E. Bostrom, J. A. Prindiville, Wm. C. Engel, Frank Haines, Robert Burrows.

The Grain Com'te of the Board of Trade, L. D. Godfrey, chairman, in the annual report listed: Sampled: Out of store by lake vessels, in bushels, 594,700; out of store by barges, 202,700; received by barges, 7,307,051; grain transferred from private to public elevators; wheat, 48,700; corn, 762,619 bus. Total sampled, 811,319 bus. Number of cars sampled on track, 86,928; number of cars sampled at elevators, 16,480; number of cars tested for moisture, 87,884.

At the first annual meeting of the National Popcorn Ass'n held here recently, C. W. Erne, of Popcorn Growers & Distributors Co., Wall Lake, was re-elected president and Leonard Blewitt, of Central Popcorn Co., Schaller, was re-elected sec'y. B. A. Klein, Chicago, was elected treasurer; Ollie Koeneman, St. Louis, Mo., vice-pres.; two-year members of the executive com'te: Ed Mangelsdorf, St. Louis; C. W. DeWees, Chicago; Walter St. Clair, Indianapolis, Ind.

A total of 178,271 cars, all commodities, were weighed by the Board of Trade Weighing and Custodian Departments as compared to 140,576 cars in 1942, according to a report of the Weighing and Custodian com'te E. M. Combs, Jr., chairman, recently submitted by J. A. Schmitz, weighmaster and custodian, in his annual report. Grain weighed to and from boats; in store, by lake vessels and barges, 23,307,048 bus.; out of store, by lake vessels and barges, 6,643,691 bus.; total for 1943 as compared to 1942, shown in parentheses, 29,950,739 (36,001,604) bus.; grain weighed from trucks, in store for 1943 as compared to 1942, shown in parentheses, 3,293 (9,841) trucks.

The calendar year just closed was slightly better than the preceding period in spite of unwise ceilings and subsequent elimination of futures trading in corn and soybeans. Total futures volume topped the preceding year by about 75,000,000 bushels. Cash and carlot receipts were much larger, due to the huge crops of 1942 and 1943 and to the better prices paid to farmers. It is pleasing to report profit in our Grain Sampling Department,

due in large part to a more equitable adjustment in cost. Heretofore the operation of this department has been very costly as it ran at a deficit of over \$300,000 for the years 1930 to 1941, inclusive. We have reduced our mortgage obligations by payment of \$350,000 this year.—Pres. O'Brien in annual report to members of the Board of Trade.

INDIANA

Enos (Morocco R.F.D.), Ind.—The Enos Grain Co. elevator burned Jan. 22.

Rushville, Ind.—Central Soya Co., Inc., has purchased the Arnold Orme Elevator.—H. H. H.

English, Ind.—Guy Longest, president of the English Milling Co., is back on the job after a serious illness.—H. H. H.

Hamlet, Ind.—J. C. Phillips of Star City has sold his Hamlet Grain & Feed Co. elevator to the Starke County Farm Bureau Co-op. Ass'n.

Economy, Ind.—Jess Marshall, bookkeeper for the Economy Elvtr. Co. for many years, suffered a stroke on Dec. 31 and died the following day.

Boonville, Ind.—Ezra Kramer is retiring from business and has turned over the Boonville Elevator to Vern Brammer, an employee of long standing.—H. H. H.

Dunn (Fowler R.F.D. 2), Ind.—Paul Grau, 57, owner and operator of the Grau Grain Co., died recently in a Chicago, Ill., hospital.

Greensburg, Ind.—Galen Groves, manager of the Tree City Feed Mills for the past two years, resigned recently to accept a position with the McMillen Feed Co. at Fort Wayne.

Fort Wayne, Ind.—Orme Feed Mills, Inc., has been incorporated; 1,000 shares without par value; incorporators, Dale W. McMillen, Jr., G. C. Thomas and Edw. T. Schele.—P. J. P.

Coatesville, Ind.—Paul Darnall, a partner of the Coatesville Elvtr. & Feed Co., died Jan. 14. Mr. Darnall was an active member of the Indiana Grain & Feed Dealers Ass'n.

Union Mills, Ind.—Mr. and Mrs. Delbert Prentiss have purchased the E. N. Cook Grain Co. elevator. They have sold their farm near Westville and will move into the Cook house here.

Milford, Ind.—The office of the Milford Grain & Milling Co. was entered recently in an attempt at burglary. The dial of the safe was broken by a hammer left near the safe, but the safe was not opened.

Lafayette, Ind.—Lawrence Allen, Madison County farmer, is Indiana's 1943 soybean growing champion, the Indiana Corn Growers Ass'n announced. His yield was 42.9 bus. an acre.—P. J. P.

Alexandria, Ind.—G. H. Hanlin of Portland recently purchased the business of the Banter hatchery and feed store. Mr. Hanlin has been connected with the Haynes Milling Co. of Portland for the past 12 years.

Mount Ayr, Ind.—Walter C. Atkinson and John A. Colbourne, owners of the Mt. Ayr Grain & Lumber Co., have sold a one-third interest in the business to Leslie Peters, who took over active management of the elevator and lumber property on Jan. 1.

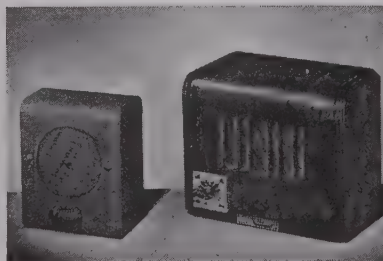
Grand View, Ind.—Federal Judge Robert C. Baltzell has signed a consent decree enjoining the Cadick Milling Co. from violating the Fair Labor Standards Act. The decree included a stipulation for payment of \$2,025.23 in back wages to nine employees.

Evansville, Ind.—New aspects of the wheat program were explained by C. E. Skiver, Purdue wheat specialist at the annual meeting of the Vanderburgh County Wheat committee held recently in the county agent's office here. Mr. Skiver explained the new score card to be used in the appraisal of 10-acre wheat contest entries this year.—W. B. C.

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Evansville, Ind.—Dr. E. C. Elliott, president of Purdue University, has crowned Leo Rexing, of Vanderburgh County, southwestern Indiana wheat king for the year. Mr. Rexing won the 10-acre contest with his field of Fultz wheat, which yielded 45.2 bus. to the acre.—W. B. C.

Indianapolis, Ind.—Albert O. Deluse, formerly treasurer of the Indianapolis Board of Trade, and associated with the Lew Hill Grain Co., has been promoted to major at the Pecos, Tex., army airfield, where he is commanding officer of the 341st Headquarters and Air Base Squadron and troop commander of the post.—P. J. P.

Union City, Ind.—The Royal Hatchery & Supply Co. has moved into its new quarters formerly the south side elevator of Pierce Elvtr. Co. The plant has been reconditioned and a large new hammer mill has been installed. M. A. Thomas of the firm is in charge of the elevator and E. F. Boese, partner in the business, is in charge of the hatchery.

Warsaw, Ind.—The Warsaw Grain & Milling Co. mill has been sold by Victor D. Mock, receiver, to Ross W. Sittler, Joe J. Ettinger and Franklin I. Saeman for \$8,000. The sale includes the lot at the corner of Union and Jefferson Sts.; the grist mill and building, all permanent and movable fixtures and machinery and equipment. The sale, made Dec. 16, has been approved in circuit court.

Waynetown, Ind.—D. C. Moore, who operates elevators here and at Hillsboro, Veederburg and Covington, in the name of himself and Mrs. Moore presented a gift of \$10,000 to the endowment fund of Culver Hospital, Crawfordsville, an expression of their appreciation of the service given by the hospital since it was founded 40 years ago. Mr. Moore has been a member of the hospital board for the last 10 years.—P. J. P.

Crawfordsville, Ind.—Crabbs, Reynolds, Taylor Co., which has 15 elevators in this section of Indiana, has nine of its employees serving in the armed forces of the nation. They are: Harry J. Garrison, Maurice I. Gill, Crawfordsville; Homer W. Ludlow, now a lieutenant, Ralph Burton and Newton K. Newton, of Lafayette; Richard M. Gillespie, Reynolds; Chas. Rayburn, Clarence R. Rayburn, Taylors Station; Lewis F. Newkirk, Cherry Grove.

Sullivan, Ind.—Sherell W. Johnson of the Johnson Feed & Supply Co. has announced the purchase of the Kerlin Elvtr. & Feed Co. This plant, located on the C. & E. I. R. R., consists of a 30,000-bu. grain elevator with a warehouse on the north, and connecting on the south side of the elevator is a three-story brick mill building with full basement. Reconstruction on the property is under way and it is expected to have the elevator in operation to buy corn soon. A new sheller has been installed along with a new moisture tester. Mr. Johnson stated the elevator will be buying all kinds of grains in season.

Montmorenci, Ind., is to have complete grain elevator service again despite the fire of Dec. 20, that destroyed the elevator operated by the Montmorenci Elevator Corporation and owned by Henry W. Marshall and Henry W. Marshall, Jr. The elevator site and the property not destroyed have been sold to the Lafayette Cooperative Elevator Co. which has taken over and is operating that portion of the plant that remains. The company will rebuild the elevator and erect a building for the grinding and mixing of stock feeds. The Lafayette Cooperative Elevator Co. was organized in 1922. In 1938, however, the company acquired a Clark's Hill elevator, adding the Shadeland elevator to its string in 1939, and in May, 1943, combining with its business the business of the Tippecanoe County Farm Bureau Ass'n. Wilbur L. Woodfield is general manager. Miss Ada Abersoll who has been manager of the elevator for a number of years will remain in that capacity, with J. V. Arvin as elevator superintendent.—W. B. C.

Falmouth, Ind.—The office of the Clark & Kirklín elevator to which it was connected was destroyed by fire communicated by a burning garage Jan. 5. Wind from the west carried the flames away from the elevator. The garage building, owned by the Rush County Mills, was across the street from the elevator. Loss included a truck loaded with a ton of feed belonging to the company, and an automobile owned by Frank Osting, father of Howard Osting who is manager of the elevator.

IOWA

Grant Center, Ia.—Wilbur Austin Blakely, 78, operator of the local elevator, died in the St. Joseph Hospital at Sioux City, Ia., Dec. 24.

Waterloo, Ia.—The Soy Bean Processing Co. is building a 20x40 ft. structure over some storage tanks on its property, at a cost of \$7,000.

Council Bluffs, Ia.—A blaze that broke out in a transformer at the Omaha Elvtr. Co. elevator recently was quickly extinguished by firemen.

Iowa City, Ia.—Harry J. Dean, manager of the W. & F. Miller feed business and at one time president of the Western Grain & Feed Dealers Ass'n, recently was elected a director of the local Chamber of Commerce for a three year period.—Art Torkelson.

Des Moines, Ia.—Eighty-seven members and guests of the Des Moines Feed, Flour & Seed Club enjoyed a turkey dinner at the new Sargent & Co. feed manufacturing plant Jan. 3, and heard John Moninger, Chicago, discuss at length the relationship between available feed supplies and the production of meat.

Keokuk, Ia.—O. A. Talbott, retired grain and seed man, died Dec. 30 after an extended illness. Three years ago Mr. Talbott retired from the business in which he was active for many years. He built and operated a large grain elevator here and also operated elevators and lumber yards over the state.

Denison, Ia.—Fire caused by an overheated bearing in one of the wheat cleaners at the Doud Milling Co. plant on Jan. 6th, resulted in damage estimated by H. L. Fitch, manager, at \$500. Firemen found it necessary to tear the equipment apart to reach the seat of the fire, which necessitated replacing the same with a new machine.

Dakota City, Ia.—The Alfalfa Milling Co. held open house Jan. 15, serving doughnuts and coffee to the many visitors who called to inspect the remodeled and enlarged plant.

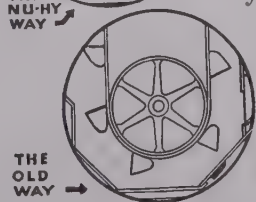
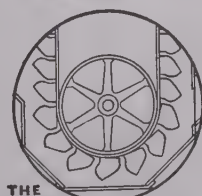
What Cheer, Ia.—The second floor of the Wiley Milling Co. elevator addition has been completed. Both floors will be used for storage of sacked feeds. Entrance to the first floor is on the north and a driveway will be built on that side of the building. The second floor entrance is at the south and a loading platform leads from it to the Chicago & Northwestern R.R. tracks.

Kennedy (Adel P. O.), Ia.—Community Elevators, Inc., has purchased the Johnson-Tuttle Elevator. The new owners announce they will remodel this house and their other plants when the war is over. They recently purchased elevators at Redfield, Hancock, Portsmouth, Cumming, Runnells, Melcher, and Rider of the Des Moines Elvtr. Co., and opened a general office in Des Moines.

Jefferson, Ia.—Mrs. Elmer A. Milligan passed away Jan. 9 in a Des Moines hospital. Interment was at Jefferson. She is survived by her husband, a son, David O., and a daughter. Mr. Milligan was formerly in business here in the D. Milligan Co. before dissolution of that company following the death of Frank Milligan. Elmer is now operating a line of elevators from his Des Moines office known as E. A. Milligan & Son—Art Torkelson.

Ralston, Ia.—The new soybean processing plant of the Farmers Co-operative Ass'n went into operation Jan. 4. Construction of the plant was started last June. It is the first of its kind in this section of Iowa. The plant will sell meal retail to local consumers and will wholesale to dealers in the surrounding trade area. The oil will be shipped in tank car lots to the nearest refineries. Karl Nolin will manage the new mill.

Clinton, Ia.—The building contract in the \$275,000 expansion program of the Clinton Products Co. was awarded the Weitz Const. Co. The engineering and architectural work contract was awarded to Smith, Hinchman & Grylls. New buildings authorized by the Defense Plants Corp. and the WPB include a modern elevator plant and boiler house for the conversion of grain wastes from alcohol distilling into high protein stock feeds. Work is expected to start about Feb. 1 and the project is scheduled to be completed July 15.



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Lake Park, Ia.—The pickup truck belonging to the Arnold Elevator that was stolen about three months ago, has been recovered. It was found in a parking lot at Sioux Falls, S. D., none the worse for its long absence.

Morrison, Ia.—Herman R. Stock, who resigned as manager of the Farmers Co-op. Elevator last July because of ill health, has regained his health and was renamed as manager. He will take up his work again soon. J. Orlen Stout of Grundy Center, who has been serving as manager will become assistant manager again.

Clinton, Ia.—Philip W. Pillsbury, president of the Pillsbury Flour & Feed Mills Co., will direct the local office of the Pillsbury feed mills division, filling the vacancy created by the resignation of Robert O'Brien, local manager, who will enter military service. Mr. Pillsbury stated that the feed shortage situation in the country had reached a point where no diminution from production quotas could be permitted even temporarily, in explaining his decision to supervise personally the local office.

Cedar Rapids, Ia.—Fire which started from an overheated drier destroyer more than \$6,000 worth of soybeans and caused an undetermined amount of damage at Cargill, Inc., soybean processing plant, Jan. 3. The fire centered about 80 ft. up in a drier and firemen had difficulty getting water to the smoldering beans. L. O. Hauskins, manager of the plant, said about 1,500 bus. of beans lying in the driers were damaged. Water damaged another 2,000 bus. in a bin at the bottom of the drier. Operation of the plant was not stopped because a quantity of already dried beans was on hand.

Guthrie Center, Ia.—William Flanery, 47, owner of the Farmers Elvtr. Co. elevator, and William Moylan, 58, an elevator employee, were killed the night of Jan. 8 when they lost control of the pick-up truck they were driving to Stuart, and it plunged from the highway south of here, shearing off a telephone pole. When found Flanery was dead, apparently having lived for a short time after the accident, and Moylan died a few hours later after being brought here. A tire on the truck had blown out, but it could not be determined whether that was the cause of the accident, officials said. Flanery was single; Moylan is survived by his widow and six grown children.—A. G. T.

Belmond, Ia.—Construction and remodeling of the General Mills soybean plant is progressing rapidly and it is expected processing of beans will begin by July 1. All old machinery is being taken out and two fire walls extending thru the roof dividing the main building into three sections are being built. The main building has been insulated and the ceiling fireproofed with asbestos sheeting. Fireproofing will be so complete that a fire in one section will not endanger either of the other two. When completed the south section will contain the oil refinery; beans will be received and prepared in the middle room and the north section

is for the solvent plant. Excavation and construction of the six storage bins by the McKenzie-Hague Co. will begin soon. The bins will be 27 ft. in diameter, 105 ft. high, and supported by 1,500, 24-ft. piling. The elevating shaft will be 130 ft. high from the ground to the headhouse. A drying building also will be constructed. Storage of the soybean meal will be in five large bins, four to be erected in the warehouse at the south end of the main building and one in the plant.

KANSAS

St. Marys, Kan.—The Farmers Union Co-operative Business Ass'n, Clarence Yokum, manager, purchased the business and properties of Byrnes & Co., following the recent death of T. J. Byrnes.

Rock Creek, Kan.—Louis Puderbaugh, who operated elevators and feed stores here and at Ozawie, and had been a member of the Kansas Grain, Feed & Seed Dealers Ass'n for years, died in a Topeka hospital in December.

Nortonville, Kan.—C. Schnelle, who has operated the Corpstein Elvtr. Co. elevator for six years and has leased it the past year, has resigned due to poor health and has been succeeded by C. J. Chmidling, who took charge Jan. 1.

Clifton, Kan.—Walter Nelson, 50, suffered the loss of his left arm when his left glove caught in a feed grinder he was operating at his home 5 miles northeast of here recently, and the arm was drawn into the machine. It was so badly mangled amputation was necessary.—I. D. A.

Marquette, Kan.—Walt Hoffermehl, manager of the Lindsborg Milling & Elvtr. Co. elevator, has been called into U. S. Military Service, and Jesse Clark has succeeded him as manager. Mr. Clark formerly worked here, but has been manager of an elevator at Galva for the past several months.

Atchison, Kan.—Alfred F. Dehan recently resigned as poultry and nutrition specialist for the Blair Elvtr. Corp., a position he has held for the past 17 years, and has accepted a position as district service director and supervisor in Kansas for Dr. Salisbury's Laboratories. Charles Ellison has succeeded him as director of the Blair Elevator poultry service department.

Little River, Kan.—A concrete structure will be built on the site of the Burke Grain Co. elevator head house which burned recently. It will increase the storage space of the elevator by about 40,000 bus. Application has been made for the materials needed, which is expected to be granted as none of the grain in storage can be moved until the equipment is obtained. Most of the 15,000 bus. of wheat, corn, kaffir and barley that was stored in the headhouse which burned, was damaged. The 150,000 bus. of wheat in the 106 ft. tall concrete storage bins escaped damage.

Russell, Kan.—Mason B. McVeigh of Omaha, Neb., has purchased the Russell Milling Co., thru recent sale becoming owner of a controlling number of shares of stock. He has taken over management of the mill. For the past 14 years he has been employed with Kelly-Erickson Co. All employees of the local plant were retained by the new owner, who hopes to have the mill operating on a 24-hr. schedule in the near future.

Arlington, Kan.—E. F. Brown, who recently resigned as manager of the Co-operative Exchange, took up his new duties as manager of the Arlington Elvtr. Co. Jan. 1. Elmer Ochs succeeded him at the Co-operative Exchange. E. C. Beuchamp recently resigned as manager of the Arlington Elvtr. Co. elevator after many years in the grain business. He purchased the Kirby Rexall Store, ill health having caused him to quit the grain business.

KENTUCKY

Maysville, Ky.—Joshua B. Everett has been appointed State Commissioner of Welfare by Gov. Sim Willis. Mr. Everett is a member of the firm of J. C. Everett Co., Maysville, operators of a grain elevator, and dealing in agricultural supplies.—A. W. W.

Ludlow, Ky.—The Fifth Regional War Labor Board has returned a finding of \$25,586 against the Big Four Mills, Ltd., "for knowingly raising its wage rates in violation of the Wage Stabilization Act to attract workers from other employers in the Cincinnati area."—A. W. W.

Burnside, Ky.—Robert Terry, employed at the Burnside Roller Mills, owned by O. W. Robinson, narrowly escaped death or serious injury recently when a part of the mill building collapsed and he was thrown thru a gaping hole in the wall along with a large quantity of corn. He was in a bin on the third floor into which 1,900 bus. of corn had just been unloaded when 20 ft. of wall on the west side of the building collapsed and fell outward. As the corn poured out thru the hole a distance of 40 ft. to the ground, Terry went out with the grain. The latter fortunately preceded him and cushioned his fall as well as preventing his being buried in the corn.

Louisville, Ky.—Announcement was made Jan. 13 of the resignation of Fred C. Borries as president of the Ballard & Ballard Co., flour millers, and the election to the presidency of Lieut. Thruston B. Morton, 37, now in the Navy, but on leave of absence after months in the Solomons district as skipper of a naval vessel. Lieut. Morton has been with the company since leaving college in 1929, and is a son of Dr. David C. Morton, of Richmond, Va., chairman of the company board of directors and former president and active manager of the company. For the past several years he has been vice-pres. Clark Yager, in charge of the company's wheat department, as vice-pres. and sec'y, relinquishes the office of sec'y, which goes to his assistant, Charles L. Boren. Adam Lilly, connected with the sales department for thirteen years, becomes a vice-pres. Lieut. Morton, who is being transferred shortly to another Naval command, will be inactive as president, and operation of the company will be in the hands of Clark Yager, with the company 17 years, and Mr. Lilly, until Lieut. Morton resumes active connection.—A. W. W.

MICHIGAN

Nadeau, Mich.—August Jean, retired mill operator, died recently.

Detroit, Mich.—Burglars recently knocked the combination from a safe belonging to the LaZoen Hay & Feed Co., and escaped with \$350.

Athens, Mich.—William F. Wolfe, 78, co-owner of the Athens and Leonidas elevators, president of the village and prominent in business and civic circles for 28 years, died Jan. 4 following a long illness.

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Manchester, Mich.—E. G. Mann & Sons have bought the local mill from William J. Blaess & Son which they have leased for the past three years.—E. G. Mann.

Mt. Pleasant, Mich.—The Mt. Pleasant Co-operative Elevtr. Co. has changed its capital from \$10,000 Class A preferred, \$20,000 Class AA preferred and 5,000 shares n.p. common, to \$10,000 Class A preferred, \$20,000 Class AA preferred and 25,000 shares n.p. common.—P. J. P.

Blissfield, Mich.—The Blissfield Co-operative Co. has purchased the Jasper Grain Co. of Jasper, Mich. and will take possession Feb. 1st. Our annual meeting will be held Jan. 26th. The audit will show that the business amounted to \$1,113,000. The company has declared 6% interest in stock and 7% on all purchases and sales to stockholders.—Blissfield Co-op Co., J. C. Kitter.

MINNESOTA

Beaver Creek, Minn.—Bill Anderson, formerly of Brewster, is new manager of the Farmers Elevator.

Alpha, Minn.—E. C. Johnson, for over six years manager of the Beaver Creek (Minn.) Farmers Elevator, has been appointed manager of the local Cargill, Inc., elevator.

Carlisle, Minn.—Henry Halderson, 76, president of the C. & O. Farmers Grain & Mercantile Co., and head of the Carlisle Shipping Ass'n, died in his sleep Jan. 10.

Windom, Minn.—The J. H. Fisch Co. was awarded the contract for construction of the 40,000-bu. elevator for the Farmers Co-operative Elevtr. Co., to replace the one destroyed by fire Nov. 11. Work will begin as soon as approval is received from the WPB.

MINNEAPOLIS LETTER

The Bunge Elevtr. Co. will build a frame addition to its building on 12th Ave. S.E.

Maney Bros. Mill & Elevator Co. is making alterations at its feed mill, installing a new scale hopper, new bins, etc.

A. C. Grimm, chairman of the Midwest advisory board's com'te on freight car efficiency, who has been traffic manager of the Springfield, Ill., mill of the Pillsbury Flour Mills Co., on Jan. 17 took over new duties as assistant general traffic manager of the company at the general offices here.—P. J. P.

A mortgage totaling \$1,500,000, covering personal property of Farmers Union Grain Terminal Ass'n in its offices here and in North and South Dakota, Iowa, Nebraska and Montana, was filed in the office of Donald C. Bennyhoff, registrar of deeds, Jan. 17, and is held by Central Bank of Co-operatives.—P. J. P.

The Traffic Club held its annual Grain and Milling Day meeting at the Minnesota Terrace Room, Nicollet Hotel, the afternoon of Jan. 20. E. S. Ferguson, vice-pres. of the Kellogg Commission Co. and former president of the Chamber of Commerce, was the guest speaker, his topic, "The Grain Trade in War Time."

Stockholders of General Mills, Inc., have been asked to approve a plan to spend \$20,000,000 for post war expansion. Pres. Harry A. Bullis and James F. Bell, chairman of the board, in a letter to preferred stockholders asked authority to raise the money by issuing 10-year sinking fund debentures at two and one-fourth per cent interest. The letter said the money was needed for post-war employment responsibilities as well as to "broaden the base of the company's operations."

MISSOURI

Wayland, Mo.—The Winkleman Bros. elevator was sold recently to O. C. Bott of Keokuk.

De Soto, Mo.—John Gowan, manager of the Dixie Mills Co. feed store, entered the armed forces Dec. 28.

Sturgeon, Mo.—Granville Crump has purchased the feed and poultry business of A. B. Brooks, possession to be given Feb. 1.—P. J. P.

Aullville, Mo.—Leslie Corbin and Luther Gann, of Higginsville, Mo., have purchased the Aullville Elevator from George Klingenberg. The elevator has been closed for some time.

St. Louis, Mo.—John J. Carey, 70, for 33 years superintendent of the Victoria Grain Elevator, Main and Mound Sts., until his retirement, died Jan. 10 after a long illness.—P. J. P.

LaMonte, Mo.—G. L. Reynolds has purchased an interest in the LaMonte Elevtr. Co. The firm will be under the management of Jones, Jones and Reynolds in the future. Mr. Reynolds started his new duties Jan. 6.

Charleston, Mo.—Harvey E. Moore, 69, died in Cairo, Ill., Jan. 18. He had been seriously ill for more than two weeks of a heart ailment. He was a field representative of the Holloway Grain Co.—P. J. P.

Gilman, Mo.—William E. McNabb, 58, a broker telegraph operator employed here for a number of years, died recently following a month's illness. Mr. McNabb had also been employed at James E. Bennett & Co., Springfield, Mo.—P. J. P.

St. Louis, Mo.—The Southern Illinois Millers' Ass'n held its semi-annual meeting at the Missouri Athletic Ass'n building Jan. 13. C. A. Carter of Ava, president, presiding. The principal speakers were Herman Steen of Chicago, vice-pres. of the Millers National Federation of the National Soft Wheat Millers Assn.—P. J. P.

Fayette, Mo.—Vodra W. Philips, for five years manager of the Fayette Co-operative Mill & Elevtr. Co., resigned from that position but will continue to serve until his successor is named. Ill health was given as the cause of his resignation. He was elected a member of the board of directors at the annual meeting of the company. A report of the year's business read at the meeting showed the company has had the largest volume during 1943 of any year in its history, and was double that of 1941. Total business for 1943 amounted to \$161,219.67; the net profit for the year was \$4,963.12.—P. J. P.

Lamar, Mo.—The Norris Grain Co. recently sustained an electrical damage loss at its local plant.

Rolla, Mo.—The Rolla Exchange Mill has plans completed and is asking permits for construction of a two-story mill to be built on the lot at 6th and Elm Streets now occupied by the Burrell Bros. Pontiac Agency. It is adjacent to the Frisco siding. Frank H. Blue, in announcing the expansion plan at a recent meeting of the Rotary Club, said the basement of the mill will be used to house a chick hatchery.

St. Joseph, Mo.—C. D. Kieber of the Stratton Grain Co. on Jan. 11 was elected president of the St. Joseph Grain Exchange; A. B. Plummer, grain buyer for the Quaker Oats Co., was elected vice-pres. Newly elected directors are Mr. Plummer, R. G. Graham, M. A. Hayes, J. D. McKee, C. J. Hauber. Holdover directors are K. B. Clark, retiring president; Mr. Kieber, E. M. Foutch, Fletcher Riggs. The annual dinner and business meeting of the Exchange was held the night of Jan. 11 in Hotel Robidoux. At a meeting of the Board of Directors on Jan. 21, N. K. Thomas was re-elected sec'y of the Exchange and F. L. Ford, treasurer.

KANSAS CITY LETTER

Kansas City, Kan.—The Kansas Soybean Mills, headed by Ted W. Lord of Emporia, bought the mill and elevator property at Eighteenth and Baynard Ave. for an enlarged soybean mill.

The Commission Men's Ass'n of the Kansas City Board of Trade Jan. 10 elected Stanley G. Cronin president for the ensuing year. L. J. Byrne, Jr., vice-pres., and R. W. Wood, sec'y-treasurer.

The Kansas City Board of Trade, on Jan. 19, adopted a resolution against unnecessary and improper markups on grains and instituted a rule whereby violations may be penalized under "uncommercial conduct" provisions of the exchange constitution.

Newly elected directors of the Grain Clearing Co. of the Kansas City Board of Trade met Jan. 10 and elected W. B. Lincoln president. Other officers are R. H. Sturtevant, first vice-pres.; H. A. Merrill, second vice-pres.; D. C. Bishop, sec'y-treasurer. George G. Lee was reappointed manager for the fortieth consecutive year, and R. D. Cline, assistant manager.



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J. T. (Tom) Sexton has applied for membership in the Kansas City Board of Trade on transfer from A. L. Ernst, deceased. The membership sold for \$2,350, an advance of \$250 from the last preceding sale. R. V. Millikan has been elected to membership in the Exchange.

Members of the Kansas City Board of Trade will vote Jan. 31 on an amendment that would permit directors to fix the rate of interest to be charged on drafts or money advanced in the handling of carlots of grain or other commodities. The present rule set the rate at 6 per cent but under the amendment it probably would be reduced. Vote also will be taken at the meeting on the amendment that provides for notation of the time of execution of all grain future trades, to conform to regulations of the Commodity Exchange Act.

Lieut. Col. Herbert E. Poor, post exchange officer at Camp Robinson, Ark., since May, 1942, has retired from active duty and will make his home here with his wife and two daughters. Col. Poor, who was 60 years old Jan. 1, is president of the Herbert E. Poor Grain Co., here; heads the Chapman (Kan.) State Bank, is a director of the Rosedale State Bank and the Produce Exchange Bank, owns a grain elevator at Chapman and has a farm near there. He enlisted in the Missouri National Guard in 1918 as a member of the 110th engineers and rose from private. He went to Camp Robinson with the 35th division and remained at camp when that unit left in December, 1941.

MONTANA

Broadus, Mont.—The Broadus flour mill has been taken down and the lumber used to build an addition to the local hospital.

Havre, Mont.—Morgan Burke, 64, widely known elevator man and grain inspector for the Montana department of agricultural and labor, died Jan. 11 at his home of a heart attack. He had been ill for the past three months.

NEBRASKA

Kearney, Neb.—The I. B. Stark feed store was damaged by fire Jan. 14.

Genoa, Neb.—A small blaze in the coal yards of the Farmers Co-op. Grain & Milling Co., Jan. 12, was extinguished before much damage resulted.

Hastings, Neb.—The County Grain Co. has leased the Standard Oil Co. warehouses for the storage of government beans and peas.

Taylor, Neb.—Wayne Ferguson has purchased the Wiley Bros. feed and produce business following Glenn Wiley's enlistment in the Navy.

Central City, Neb.—Clarence Hummel will take a position in the T. B. Hord Grain Co. office, succeeding Joe Mattson who has entered the Armed Forces.

Vesta, Neb.—The Farmers Elvtr. Co. elevator has closed after many years of operation. Abandonment of the railroad service was given as cause of closing.

Pender, Neb.—R. P. Mason, 73, for 40 years employed by the Holmquist Grain & Lumber Co., later the Heyne Lumber Co., until his retirement in 1936, died Jan. 14.

Deshler, Neb.—The Deshler Grain & Feed Co. recently installed new grinding and mixing equipment in its feed department. John Maltper is manager of the elevator.

Auburn, Neb.—Harry E. Francis, formerly manager of the Farmers Union elevator at Dawson, is new manager of the Allison F. Gibbs two elevators here and the one at Rohrs.

Dawson, Neb.—Harry E. Francis has resigned as manager of the Farmers Union Co-op. Ass'n elevator and has moved to Auburn where he will manage the A. F. Gibbs elevators.

Fremont, Neb.—Harvey Livingston, 40, of Scottsbluff, Neb., paid a \$516.55 check given the Co-operative Elvtr. Co. here in payment for corn, and charges against him have been dropped.—P. J. P.

Manley, Neb.—The Manley Grain Co. elevator has reopened for business after being closed for repairs and has been placed in good operating order again after one of the busiest seasons in a number of years.

Beatrice, Neb.—One of the eight state-wide grain and feed meetings sponsored by the Nebraska Grain & Feed Dealers Ass'n was held here Jan. 19. The feed situation and corn ceiling order and ceiling prices were discussed.

Hartington, Neb.—Art Arens, owner of the Star Elevator and producer of Star hybrid seed corn, has purchased the Roskoff garage building across the street from the elevator and will equip the building as a processing plant for his hybrid seed corn. He also will install a scratch feed mill and grader.

Wyoming (Nebraska City P. O.), Neb.—The Farmers Elvtr. Co. of Nebraska City has purchased the C. C. West elevator and now owns two elevators here, both of which will be operated in addition to houses at Nebraska City and Elberon. The Farmers Elvtr. Co. enjoyed one of the most successful years of its history in 1943 and at the recent annual meeting a 10 per cent dividend was paid.

Louisville, Neb.—Mr. Stanley of Nebraska City has been named manager of the Farmers Elevator here. He has had experience in the work having worked with his father in the elevator at Nebraska City. Recently he has been employed at the Hastings Ordnance Depot.

Omaha, Neb.—The Omaha Grain Exchange reported the volume of grain handled by the local market was the largest in its history, more than 100 million bushels. Previous to 1943 the largest amount of grain shipped out of Omaha was 76 million bushels, that was in 1918, the closing year of World War I.

Tekamah, Neb.—A carload of sacked meal, ready for shipment at the Alfalfa Plant, burned recently. The carload of feed was standing near the mill when it caught fire, igniting the door of the mill before it was moved up the track. Lack of water hindered firemen in extinguishing the fire. The mill was not damaged.

Syracuse, Neb.—The A. B. Wilson Grain Co. elevator was broken into recently and some small change was taken from a drawer, Mgr. Elmer Janssen reported.

Lincoln, Neb.—Stockholders of Lincoln Grain Exchange at their annual meeting elected to the board of directors J. M. Hammond, John M. Paul, Cobe S. Venner and W. S. Whitten. At a meeting of the new board that followed Mr. Hammond was re-elected president, Mr. Venner vice-pres., and Mr. Whitten sec'y-treasurer.

Filley, Neb.—The Filley Farmers Co-operative Elvtr. Co. stockholders voted to close the plant because train service between Beatrice and Tecumseh was abandoned Jan. 22. The plant was established more than 50 years ago by the late Elijah Filley, founder of the village. Walter Boyd, manager, will devote his time to farming.

Grand Island, Neb.—A meeting of grain and feed dealers was held here the evening of Jan. 12 under auspices of the Nebraska Grain & Feed Dealers Ass'n. It was one of a series of eight such meetings being held thruout the state to discuss the corn ceiling order and ceiling prices as well as the feed situation in general.

Blue Springs, Neb.—An addition is being built to the L. S. Smith Feed Mill, located just east of the present structure. The new structure, 40x70 ft., will be of frame construction and will house an additional grinder which will be used for custom grinding. The balance of the room will be used for a loading dock and storage.

Sargent, Neb.—A grain bin on the north side of the east wing of the Barstow Grain Co.'s elevator burst open the afternoon of Jan. 2, and over 4,000 bus. of the 6,000 bus. of corn in the bin poured out, covering ground and side tracks. The hole in the bin was a few feet above the ground and is being repaired. The grain was salvaged.

Kennard, Neb.—One of the elevators of the Nels F. Lauritsen Grain & Lumber Co. has been leased to the Raven Sales Co. of Council Bluffs, manufacturer and processor of farm feeds. The feed concern will occupy the west elevator of the Lauritsen firm and is constructing a grinding building where grain will be processed and shipped out in carload lots.

Fremont, Neb.—Gov. Dwight Griswold and Senator Kenneth S. Wherry are lending their influence and aid toward obtaining needed equipment for expansion of the soybean processing plant of Marr Industries. A resolution has been adopted by the directors of the Chamber of Commerce asking the W.P.B. to reconsider its decision denying the equipment.

Holdrege, Neb.—Mr. H. H. Morin, a resident of Holdrege for the past thirty-six years, passed away at his home on Jan. 19th. Mr. Morin was associated with the Central Granaries Co. also Nye, Jenks Grain Co. and the Critenden Grain Co. until about 10 years ago. He is survived by his widow and one daughter.—Holdrege Equity Exch., V. C. Wilson.

Lincoln, Neb.—The Nebraska Grain & Feed Dealers Ass'n held a meeting here the evening of Jan 17, which was of great importance to elevator men and those engaged in the grain and feed industries. The many regulations affecting the grain and feed business were discussed by experienced grain and feed men. Subjects given consideration included the corn ceiling order and ceiling prices as well as the feed situation in general. Phil Runion, association sec'y, said the association is sponsoring a series of eight meetings thruout the state, the local meeting being one of them.

NEW ENGLAND

Barton, Vt.—The feed mill of Fred C. Brown was damaged by fire on Dec. 31, communicated from a nearby burning building.

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Lawrence, Mass.—The H. K. Webster Co., manufacturer of Blue Seal grain products, has announced the appointment of Dr. Harold M. Harshaw, Ph.D., as nutrition director and Harold E. McClure as chemist for the organization. This move is coincident with the establishment of a new feed control laboratory at the local plant and a research program to be carried out under the direction of Dr. Harshaw. The company also has a plant at Richford, Vt.

NEW YORK

Warsaw, N. Y.—The Warsaw Elvtr. Co. and its employees were awarded the Army-Navy "E" during an appropriate ceremony here on Jan. 15.

Clinton, N. Y.—The O. & W. railroad station building, unused for a number of years, has been sold by the railroad trustee to the Moses-Cronk Co., neighboring feed firm.

Ithaca, N. Y.—James A. McConnell, general manager of the Co-operative G. L. F. Exchange, Inc., stated G. L. F. is considering setting up freezer-locker plants for farmers, additional super markets for foods and farm-repair shops. It is also exploring how to operate a community farm supply store on commodities other than feed, seed and fertilizer, he said.—G. E. T.

Tonawanda, N. Y.—The Eastern States Co-operative Milling Co. has bought the Old Certainteed Products plant adjoining its feed mill on Ontario St. Until the end of the war the plant will be used for war production purposes. After that, Carl F. Barnum, assistant manager of Eastern States Co-op. Milling Co. stated, the present building will be razed to provide more room for the milling company's operations.

Buffalo, N. Y.—Edwin T. Douglass, 76, manager of the Eastern Elevator, died Jan. 18. While Mr. Douglass had been in ill health, he continued to go to his office until Jan. 15. Mr. Douglass was associated with the Western Transit Co. in New York until he came to Buffalo 40 years ago to succeed his father as manager of the local office. He went with the Great Lakes Transit Corp. when it acquired Western Transit, which operated lake steamers before the First World War. He then joined the Eastern Grain Elvtr. Corp., with which he was associated for 25 years. He was a director of the corporation, member of the New York Produce Exchange and the Winnipeg Board of Trade, and was a director of three shipping corporations no longer in existence—Eastern Steamship Co., Ltd., Western Steamship Corp. and Grammer Steamship Corp.—G. E. T.

NORTH DAKOTA

Steele, N. D.—Fire originating in the cupola damaged the elevator of the Russell-Miller Mfg. Co. recently.

Park River, N. D.—The annual North Dakota State Potato Show during which a grain show will be held here, is scheduled for Mar. 1, 2 and 3.

OHIO

Toledo, O.—The Ohio Farmers Grain Dealers Ass'n will hold its 29th annual convention at Hotel Secor Feb. 21-22.

Toledo, O.—Raoul Levy, formerly of the Omaha branch of the Continental Grain Co., has been transferred to the firm's local branch office as manager.

Beverly, O.—The Beverly Mill, B. S. Freeland, owner, will be operated by H. E. Tracey of Zanesville, son-in-law of Mr. Freeland. The main mill building and stock was taken over by Mr. Tracey Jan. 17.

Blanchard (Dunkirk P. O.), O.—E. E. McConnell recently sold his local elevator to R. E. Minter, a prominent and successful farmer of the community, who will operate the plant under the name of the Blanchard Elevator.

Leipsic, O.—George H. Moorhead has purchased the Prentiss Elevator, Jan. 1, from N. G. Bennett of McComb, O.

New Philadelphia, O.—C. Arthur Ridgway, proprietor of the Ridgway Co., feed store, mill and farm implement firm, has purchased the Hensel storage building and will use the building for storage purposes.

Leavittsburg, O.—J. F. Klingensmith, feed mill operator, hid \$18 in one of hundreds of bags of grain in his mill, for safe keeping. But someone must have been peeking. Mr. Klingensmith reported to the sheriff shortly afterward he found the back door broken open and the money gone.

Alger, O.—E. E. McConnell has sold a half interest in his local elevator, McGuffey Elvtr. Co., to Robert J. Chandler, who has managed the elevator for the past seven years. The partnership will operate under the name of the Alger Elevator. Mr. McConnell expects to give his attention to his farming interests.

Malinta, O.—Clyde S. Shawber, 51, owner and operator of the Malinta Elvtr. Co. elevator, died the evening of Jan. 10 from a self-inflicted gun shot wound. He had been in ill health for several weeks, having failed to recover fully from influenza. He retired that evening, complaining of pains in his head. A short time later the family heard a shot and rushing to investigate, found him fatally wounded.

OKLAHOMA

Lawton, Okla.—Samuel R. Loud, 72, proprietor of the Loud Coal & Feed Co., died recently.

Woodward, Okla.—John H. Duncan, district supervisor of Kimbell Milling Co., and Miss Ethel Albright were married recently.

Enid, Okla.—Claud Nicholson, manager of the grain department, Pillsbury Flour Mills Co., is recuperating from a recent illness.

Carnegie, Okla.—Joe Evans has returned to his former job at the Farmers Co-op. Mill & Elvtr. Ass'n after several months spent in California.

Oklahoma City, Okla.—The Merit Mills, Inc., has succeeded the Hardeman-King Co.; capital stock, \$500,000; incorporators, A. G. Hammond, Earl E. Nichols and Stephen F. King, all of Oklahoma City.

Broken Arrow, Okla.—The Farmers Union Co-operative recently celebrated "open house" when the annual stockholders meeting was held. The local elevator and mill began operating as a co-operative last Oct. 8.

Ada, Okla.—W. S. Gaddy of Calvin recently filed a \$16,000 damage suit against the Ada Milling Co. in connection with a collision in which he was injured Nov. 30. The petition alleges he received a fractured left arm and minor injuries when a large flour transport truck belonging to the company bumped into his pickup truck on Highway 12, near Clavin.

PACIFIC NORTHWEST

Seattle, Wash.—Farmers of Washington State are waging a campaign against dairy-subsidy payments, Dr. Robert Prior, sec'y of the Washington State Dairy Products Commission.—F. R. H.

Davenport, Wash.—A blaze in the elevator head at the Grange Milling Co. that started when the leg choked up and the rubber V-belt, slipping on the wheel, caught fire and fell into the chaff on the floor, was extinguished recently with little damage resulting.

Kirkland, Wash.—Al Odegard of Monroe has purchased the Kirkland Cash Feed Store from O. W. Little.

Tacoma, Wash.—Peter Peterson, 79, for nearly 50 years a partner in the Peterson Bros. Fuel & Grain Co., died recently.

Kelso, Wash.—Ronald Olafson of the L-K Feed & Implement Co., has purchased the People's Store building from A. R. Bloomberg and his son, Ben. Mr. Olafson will occupy the building, using it for his feed and implement business.

Portland, Ore.—Six new directors of the Portland Merchants Exchange were elected at the annual meeting. They are L. R. Rogan, Norton, Lilly & Co.; G. E. Krummeck, Continental Grain Co.; W. A. Tischer, Albers Bros. Milling Co.; R. E. Ferguson, J. C. Hering. Holdover directors are G. C. Keeney, Captain Clyde Raabe, L. E. Cable, V. A. Driscoll, Fred N. Mills, and D. V. Miller.—H.

Seattle, Wash.—Clarence H. Carlander, president of the Puget Sound Freight Lines, was elected president of the Seattle Merchants' Exchange. Wendell W. Turner, president of Turner & Pease Co., Inc., was named vice pres. and Moritz Milburn, vice pres. of Centennial Flouring Mills Co., was named sec'y-treas. Ben D. Riley was elected manager and assistant sec'y for the 14th consecutive year.—F. K. H.

Pendleton, Ore.—A dust explosion Jan. 14 in the large elevator at the S. R. Thompson ranch, 10 miles northeast of Pendleton, painfully injured Thompson's son-in-law, Bert Haynes, who was in the receiving pit at the time of the blast. He suffered third degree burns on his hands and second degree burns about the face. He was able to climb out of the pit unassisted. Windows and doors of the elevator were blown out and an adjoining office building was shifted on its foundations. A spark from an electric cord being used by Haynes is believed to have caused the explosion. Mr. Thompson is present of the Round-Up at Pendleton.—F. K. H.

Wenatchee, Wash.—The Northwest Chemurgy Co-operative is turning out glucose, the first carload, 30 tons, produced and sold for \$6,000 early in December. The starch plant, which soon will make starch from wheat, which will in turn be manufactured into glucose, will be operating within a few months, but until that time potato starch from other plants is being utilized. Approximately 500,000 bus. of wheat will be processed yearly under a full production schedule. The local unit consists of a starch plant, glucose plant, 60,000-bu. grain elevator and steam plant to operate both manufacturing plants. The plants are being built by 700 farmers without government assistance. Construction was started last fall. Henry Carstensen, State Grange Master, is president and general manager of the co-operative.

PENNSYLVANIA

Lake Ariel, Pa.—A piece of metal going thru a grinder caused a fire in the plant of Swingle Bros. on Jan. 8 which was extinguished without much loss resulting.

SOUTH DAKOTA

Watertown, S. D.—The grain show which is being sponsored by the Watertown Chamber of Commerce, the Watertown Farm Managers Ass'n, and the Codington County Crop Improvement Ass'n, will be held Jan. 22 through Jan. 29.

STRATTON GRAIN CO.

GRAIN AND FEED MERCHANTS
MILWAUKEE, WIS.

CHICAGO, ILL.

ST. JOSEPH, MO.
MILL FEEDS — FEED PRODUCTS — BY-PRODUCTS
Consignments and Future Orders Solicited

NEW YORK, N. Y.

Sioux Falls, S. D.—Wider distribution and more advantageous use of protein feeds by South Dakota farmers and stockmen were given as main purposes of the South Dakota Feed Dealers' Ass'n, organized here Jan. 8. R. B. Meldrum, Sioux Falls, is president of the organization; Otto Frietag, Lennox, vice-pres.; Paul Batcheller, Sioux Falls, sec'y-treas. Directors include John Johnson, Brookings; F. E. Porteous, Mitchell; A. T. Kaufman, Freeman; P. H. Quarnberg, Rapid City; Carl Laurdise, Viborg, and Walter Unke, Sioux Falls. Meldrum was chosen representative to the state advisory com'ite.

TENNESSEE

Memphis, Tenn.—Ferd Heckle, grain and feed broker, was named president of the Memphis Merchants Exchange for the ensuing year, at a meeting held Jan. 8. John W. Trenholm, who has served as sec'y, was named vice-pres. Directors chosen were: C. W. Lyddane, S. F. Clark, H. L. McGeorge, C. P. Reid, L. B. Lovitt, E. B. McCoy, John B. Edgar and E. T. Lindsey.

TEXAS

McGregor, Tex.—Marshall Crouch, active associate of his father, E. W. Crouch of the McGregor Grain & Elvtr. Co., for many years, was killed when struck by a hit and run driver as he was repairing a flat tire the night of Jan. 12.

WISCONSIN

Albany, Wis.—George Smith, 85, for 20 years manager of the local feed and fuel business, died recently following a brief illness.

Adams, Wis.—A. W. Bowers, owner and operator of the Arkdale Roller Mills, has added extra warehouse space at the plant and constructed a small office building.

Ladysmith, Wis.—Governor Goodland reappointed Edward W. Richardson to the Grain and Warehouse Commission for a term ending February, 1947. Richardson first was appointed in 1941 by former Governor Heil. The position carries a salary of \$3,600 a year.

Camp Douglas, Wis.—The feed-grain elevator building of the Camp Douglas Farmers Co-operative and its contents were destroyed by fire Jan. 3, the loss estimated at \$4,000, most of which is covered by insurance. It is hoped that some of the grain can be salvaged. Martin Hansen, manager, stated regular handling of feed will not be resumed for some time. It is hoped that temporary means of mixing feeds and carrying on grinding can be arranged for soon, he said.

Rice Lake, Wis.—Barron County feed dealers have formed an organization to assist farmers to the best utilization of feeds, seeds and fertilizers. Officers of the group are: A. A. Bergeron, Rice Lake, pres.; P. M. L. Nelson, Hillsdale, sec'y. Specialists from the college of agriculture who spoke at the organization meeting included Geo. M. Briggs, senior extension specialist; I. O. Hembre, Barron County agent; V. F. Burcalow, agronomy extension specialist; C. J. Chapman, of the soils department; Gerald Annin, poultry department; Arthur Strommen, in charge of hybrid corn at the Spooner experiment station; George Baumeister, county agent supervisor.

A Permit System for shipment of hogs to the Chicago Stock Yards went into effect Jan. 24. Each commission firm will be given a quota based on 1943. The flood of hogs was created by the low ceiling on corn.

Sam, Bruce and Lester Young, who had agreed to plant 10 acres of sweet corn, alleged they had conscientious objections to growing sweet corn for the army, and refused to do so, whereupon their landlord, Clara Hoagland brought suit at Wabash, Ind., for \$410 damages.

N-W Retail Feed Men Hear of Feed Allocation

The Northwest Retail Feed Ass'n held its annual meeting Jan. 17 and 18 at the Nicollet Hotel, Minneapolis, Minn.

WALTER C. BERGER, chief of the Feed and Livestock Branch of the Food Production Administration, was the leading speaker. He said:

"Let everyone get 100% of his 1942-43 quota before anyone gets more. The principal factor to be considered is who needs the feed the worst. He should be given first consideration, not the one who simply yells the loudest.

"We must have an understanding of what types of livestock and livestock products are most needed by the country, and distribute and use our feed to meet those needs.

"It is our hope that we will be able to put more supplies into the hands of feeders, dealers and mixers who we know from experience will do a good job with the feed. Eventually, if everyone co-operates to do the job right, everyone should be getting his fair share of his quota.

"As soon as the feed industry can settle down to distributing these scarce materials on a pattern of the base period, we hope to abandon allocation.

"Our problem is as much one of mal-distribution as of actual shortage. But our reserves have been used and we must bring about an adjustment between supplies and requirements."

Dr. CLIFF D. CARPENTER, who is in charge of the Poultry Conservation Program, and is assistant to Mr. Berger, touched on the culling program now under way.

There is no intention, however, of encouraging the liquidation of profitable producing stock, for the nation needs continuing large food supplies. Food production will not suffer, and much feed will be saved if the birds and animals that are eating but not paying their way are marketed.

W. C. COVINGTON, Chicago, of the regional office of the O.P.A., pointed out the serious consequences of violating price regulations.

Violations involving criminal intent may be punished by fines of \$5,000 and five years' imprisonment on each count.

Mr. Covington led a panel discussion on feed price ceilings.

Gov. EDWARD J. THYE of Minnesota spoke on "Post-War Plans for Minnesota Agriculture."

A resolution was adopted to provide for voluntary contributions of \$5 to a post-war fund.

OFFICERS elected are: Pres., Wendell Ledin, Bethel; vice pres., Joseph Donovan, Albert Lea, and sec'y-treas., W. D. Flemming of Minneapolis. Directors: Richard Serkland, St. James; Roy Peterson, Red Wing; G. H. Homme, Kerkhoven; Martin Brevig, Houston; Harold Roth, Cambridge; Norman Fitzgerald, Mankato, and E. K. Tanner, Little Falls.

Possibility of a roll back has led country shippers to offer oats for deferred shipment.

Ground corn cobs are being shipped by Allison & Co., of Middletown, Ill., to a plant in Tennessee making chemicals for war.

Canadian oats to the extent of 600,000 bus. were worked in two days recently by buyers in the United States.



The Time to Have Bagged Products Inspected

SCALE TICKETS FOR GRAIN BUYERS

Scale and Credit Tickets—Form 51 Duplicating contains 100 leaves of white bond paper, each leaf bearing five tickets, machine perforated for easy removal, and 100 leaves of yellow post office paper, each leaf bearing five duplicates which remain in the book. Also 4 sheets of No. 1 carbon. Size of book 5½x13½ inches, check bound, well printed. Each leaf is one ticket wide and five tickets deep. Order 51 Duplicating 500 tickets. Price, \$1.25, plus postage. Weight, 1½ lbs.

Crop Delivery Record (Duplicating) — This multiple load scale ticket form has two tickets to a page so that grain from two farmers may be recorded without turning a leaf. Each ticket is ruled to record receipt of 23 loads including the date, hauler's name of each load, gross, tare and net, and has spaces at the bottom for recording the total bushels, the price, the check number, and the total amount paid in settlement. Especially convenient when a farmer sells his entire crop at one time, delivering all of it within a few days. Originals (120) of attractive goldenrod bond paper, 120 duplicates of manila, and 8 sheets of No. 1 carbon paper to the book, with heavy gray pressboard covers, cut flush. Spiral wire bound so that open book lays flat, or may be folded back upon itself in open position to facilitate entries. Size, 8½x10½ inches. Shipping weight, 2 lbs. Price, \$1.25 each, plus postage. Order Crop Delivery Record, Form 69 Spiral.

Improved Grain Tickets—Using Form 19GT as a scale book saves much time and labor as one writing with the use of carbon will give you a complete record and a ticket for the hauler. Each of the 125 original leaves bears four scale tickets, printed on white bond, machine perforated. Each ticket is 3 inches wide by 6½ long. The 125 duplicate leaves are printed on manila, but not perforated. Check bound at top of tickets with hinge top cover, 500 tickets in each book arranged horizontally. Each book is 7½x13 inches, supplied with 6 sheets of No. 1 carbon. Duplicating. Weight, 2½ lbs. Order 19GT Dup. Price, \$1.35, plus postage.

Scale Ticket Copying Book — Contains 150 leaves bearing 600 originals and 600 duplicates, four originals and four duplicates printed on each leaf and perforated so outer half of each leaf may be folded back on the duplicate, thus giving an exact copy of all entries on the original. Leaves of white bond are machine perforated between tickets so they may be easily removed without tearing. Duplicate remains attached to original until all entries are completed. Check bound, size 9½x11 inches, and supplied with 6 sheets of No. 1 carbon. Order Form 73. Weight, 2½ lbs. Price, \$1.45, plus postage.

Duplicating Scale Ticket Book — A labor-saving scale ticket book in which the buyer keeps a carbon copy of the entries made on every scale ticket issued, so altered or spurious tickets may be readily detected.

This book contains 100 leaves of white bond paper, machine perforated, bearing 800 tickets, interleaved with 100 blank manila sheets. Well printed and bound in heavy board covers. Supplied with 4 sheets of No. 1 carbon paper, size 8½x11 inches. Order Form 62. Price, \$1.55, plus postage. Weight 3 lbs.

Duplicating Wagon Load Receiving Book—This book is designed to facilitate the work of country buyers during the busy season when each farmer is delivering a number of loads daily. Each leaf bears two tickets and is perforated down the middle so that when the sheet is folded back on itself, and a sheet of carbon inserted, an exact duplicate will be made of each entry on the other side of the sheet. Each leaf has room for name of farmer and the haulers of 34 loads in duplicate. Outer half may be torn out and given to the farmer or sent to headquarters of line company. The book is 12 x 12 inches, check bound with heavy boards, contains 225 leaves ruled both sides, and nine sheets of No. 1 carbon. Order Form 66. Weight, 4 lbs. Price \$2.85, plus postage.

Cash with order for twelve copies of any of the above books earns 10% discount.

GRAIN & FEED JOURNALS CONSOLIDATED

327 So. La Salle St., Chicago

Urea as a Partial Substitute for Protein in Milk Production

Along about 1930, manufacture of synthetic urea on a commercial basis became a reality in the United States. It was used at first largely for fertilizer, but as production expanded the manufacturers began to look for other outlets. Several investigators and E. I. DuPont de Nemours & Co., principal producers of urea in this country, felt that, in view of the unsettled status of the problem, further research should be conducted by American experiment stations. Urea feeding experiments, therefore, were initiated by several institutions including Hawaii, Illinois, Kansas, Massachusetts, New York (Cornell), and Wisconsin. The investigations have included experiments with beef cattle, dairy cattle, and sheep. At least four of these institutions are still investigating various phases of urea feeding.

At the Massachusetts Station 28 Holstein cows were used in a three-year trial to determine the adequacy of urea as a partial substitute for protein in milk production. The maximum amount of urea fed was 3 per cent of the grain mixture; it supplied approximately 42 per cent of the total nitrogen in the grain and 25 per cent of the total nitrogen in the entire ration. It was compared with such standard protein concentrates as cottonseed meal, soybean oil meal, and corn gluten feed, by two systems of feeding trials, double reversal and continuous. A control ration containing no urea was fed to some of the cows as a check on the adequacy of the basal ration.

The regular ration was in general somewhat more palatable than the ration which contained urea. This was particularly noticeable during the earlier stages of the work; as the cows became accustomed to the urea grain the difference in favor of the regular ration became much less and finally disappeared almost entirely.

The cows on the regular ration maintained their general condition somewhat better than those fed the urea ration; the trend in milk production and milk shrinkage favored the regular ration in both the "double reversal" and the "continuous" groups; and a group of cows that had been kept on the urea ration continuously for two years shrunk more rapidly in milk flow when placed on a control ration than a similar group that had been on the regular ration for the same period of time. The cumulative effect became more evident as the trial

progressed, and illustrates rather clearly the inherent fallacy of drawing conclusions from short-time trials in this type of work.

It is recognized that the results of these trials are in some respects at variance with results obtained elsewhere in this country. Workers at the Wisconsin station have obtained results which indicate that urea can be satisfactorily substituted for linseed meal in the grain mixture for milking cows. On the whole, however, their results are not substantially different from those here reported and what differences there are may be due in part to the fact that these cows were on the average somewhat heavier producers, their average annual milk yield in the lactation immediately preceding the trial being in excess of 13,000 pounds.

Everything considered, it seems probable that urea will find a place in the feed trade as a partial protein substitute in grain mixtures for ruminants. It should be introduced with caution and its limitations duly recognized. The maximum amount fed should be not more than 3 per cent of the grain mixture; it should be fed only to ruminants, i. e., to animals such as cows which have a multiple stomach; and it should be fed in conjunction with feeds which furnish liberal amounts of starch or other readily soluble carbohydrates. The reasons for these restrictions are twofold: first, the bacteria and other microorganisms which form protein from urea function on a worthwhile scale only in the paunch or first stomach of ruminants, and second, these organisms require a supply of readily fermentable carbohydrate in order to grow and multiply efficiently. Within these limits and assuming that a worthwhile tonnage can be released from its present use for explosives and fertilizer, urea can be of considerable aid in helping to relieve the present serious shortage of nitrogenous concentrates.—Mass. Exp. Sta. Bulletin 406.

We are definitely of the opinion that bulls both in wheat and in rye are now on the defensive. We have had considerable correspondence with people in various parts of the country, and some of them have told us that the amount of unhedged wheat is quite sizeable. Ordinarily the high price would attract hedges to market, but there has been the further consideration of a ceiling, which might tie them to a short position, and thus make it impossible to merchandise their grain.—Uhlmann Grain Co.

Model of Granary Found in Egyptian Tomb

Bread and oil formed the main food of the people of Egypt 4,000 years ago. The making of bread was a fine art in Alexandria. Home baking was carried on but the finer confections appear to have been bought.

Wheat, barley and millet were the leading crops. Grain was imported in great quantities from Syria.

At the close of the harvest two officials belonging to the estate would come on the scene, the "Scribe of the Granary" and the "Measurer of the Corn." They measured the heaps of grain before they were taken to the granary.

These granaries were at all periods built essentially on the same plan. In a court surrounded by a wall were placed one or two rows of conical mud buildings about 16 ft. high and 6.5 ft. broad. They had one little window high up and another half way up or near the ground. The lower one served for taking away the grain; the upper was reached by a ladder.

The officials, supervisors of the granary, were very high personages. Simontu, registrar of the grain under Amemenhet II, was also "scribe of the harem" and chief of works of the entire land. Hemo, overseer of the granaries, was chief of the six courts in Egypt.

Mehenkwetre, a chancellor and steward of the Royal Palace, living under King Mentuhotep III, in whose temple his name appears, about 2,000 B. C., had a large tomb befitting his exalted station, and followed the custom of that day of having figures of servants placed at the coffin to be eternally preparing food and drink for the dead owner. Everyone who could afford it purchased such models to be piled around the coffin in his tomb.

In his tomb there was unearthed in 1919 during the excavations at Thebes a room containing no less than 24 models such as slaughter house, bakery, brewery and granary. So numerous were the models it took the archaeologists three days to remove them. The granary model is reproduced in the engraving herewith.

At the granary the ever-present clerks sit in the courtyard with papyrus rolls and tablets keeping the account, while two men scoop up the wheat in measures and fill it into sacks, and others carry it up the stairs to dump it into three capacious bins. By the front door there sits a boss with cane in hand superintending the work and watching that no one leaves before the time is up. In the next model the men crack the grain with pestles and the women grind it into fine flour for the bakery.

Data from "Life in Ancient Egypt," by Adolf Erman; "Memoires Presente A L'Institute D'Egypte," published in French under the auspices of the Sultan; Bulletin of the Metropolitan Museum of Art, New York; and the Journal of Egyptian Archaeology, London, 1920.

Value of Fish Meals

A study was made by Purdue University Experiment Station of the comparative nutritive value of several different commercial fish meals by including them in rations of swine and rats. Menhaden, sardine, and herring fish meals were found to have equal value in a mixed protein supplement when fed to swine. The experiments with rats showed differences in palatability and nutritive value of the fish meals when they were fed as the only protein supplement to corn. Ad libitum feeding experiments with rats showed that the sardine and whitefish meals were more palatable than the menhaden and herring meals.

Sardine meal appeared to be slightly superior to the other meals in palatability and nutritive value. Altho herring meal was the least palatable it had a nutritive value comparable to sardine meal. Controlled feeding trials with rats showed that the sardine and herring meals were superior in nutritive value to the menhaden meal.



Egyptian Model of Workers in Granary Found in Tomb of 2,000 B. C.

Grain Carriers

The railroads have been turned back to private operation by the president.

Bangor, Wis.—The Grain Transportation Co. has been incorporated with \$10,000 capital stock, by A. G., Mollie and Ione R. Schuster.

St. Paul, Minn.—The Minnesota Railroad & Warehouse Commission held a hearing Jan. 14 on intrastate truck rates for grain and grain products.

Recommendations for a national system of highways by the National Interregional Highway Committee were transmitted by the president to Congress Jan. 12.

The Transportation Ass'n of America has presented to Congress a well considered program looking toward the preservation of private ownership of common carriers.

Decatur, Ind.—Nine western roads have petitioned the Interstate Commerce Commission for a postponement of the effective date of the order in docket 28667 reducing rates from points in Illinois to Decatur on soybeans.

Rates on soybeans from the central states milled in transit at points in California are not unreasonable the Interstate Commerce Commission held in the complaint by the California Cotton Oil Corporation, No. 28922.

Abandonment of 54 miles of the M. K. & T. from Greenville to Mineola, Tex., is recommended by Examiner Jordan of the Interstate Commerce Commission, as all points are served by common carrier truck and bus lines.

The Sec'y of Agriculture has filed a brief on proposed abandonment of the Missouri Pacific branch line from Crete to Auburn, Neb., and 25 miles in Otoe and Cass Counties, pointing out that there are located thereon 13 elevators with a capacity of 722,000 bus.

Class I railroads had 11,277 box cars on order, besides 2,969 automobile box, and 1,004 locomotive engines. Class I railroads put 26,433 new freight cars in service in the first eleven months of 1943, compared with 61,220 in the like period last year.

Pierre, S. D.—On Dec. 30 there were 54 blocked elevators in South Dakota, most of them on the Milwaukee Road. The flow of empty box cars daily has been increased to 250 thru Chicago and 150 thru St. Louis to western grain terminals.

Omaha, Neb.—John A. Kuhn, traffic manager of the Omaha Grain Exchange, has declared that unless railroad freight cars are available immediately for transportation to terminals there is danger of corn stored in some Nebraska country elevators being damaged.

Vacation of the grain routing order of the Interstate Commerce Commission, I. & S. 5092, is asked by carriers in C.F.A. territory, who have prepared for publication specific grain routing provisions to meet the views of the O.D.T.-I.C.C. grain and grain products committee.

Average compensation per hour of employees of Class I railroads in the United States increased from 28.3c in 1916 to 85.2c in 1943. The number of miles operated decreased from 254,037 to 229,174, while the number of revenue ton miles increased from 362 billion to 637 billion.

The Iowa State Commerce Commission and the A. E. Staley Mfg. Co. have asked the Interstate Commerce Commission to suspend certain tariffs raising rates on soybean and corn oils. The Staley petition pointed out that no increases were made on competitive linseed oil from Minneapolis to Chicago, St. Louis and Peoria. The Staley Co. is now moving oil by truck at the rail rate.

Railroads in 1943 handled the greatest volume of freight traffic, measured in ton-miles

of revenue freight, for any year on record, the Ass'n of American Railroads announced Jan. 20. In that year it amounted to approximately 725,447,456,000 revenue ton-miles, an increase of 13.7 per cent compared with 1942, and an increase of 53 per cent compared with 1941.

The Interstate Commerce Commission has reopened Nos. 13,772 and 13,776 authorizing abandonment of Santa Fe lines from the alfalfa mill of the W. J. Small Co. to Moline in Greenwood and Elk Counties, Kan.; part of a line from Benedict Junction to Virgil, and from Virgil to Emporia. The county commissioners of Lyon, Greenwood, Elk, Woodson and Wilson Counties had petitioned for reconsideration.

Grain and grain products loading during the week ending Jan. 8 totaled 54,711 cars, an increase of 13,992 cars above the preceding week and an increase of 6,320 cars above the corresponding week in 1943. In the Western Districts alone, grain and grain products loading for the week of Jan. 8, totaled 39,369 cars, an increase of 10,633 cars above the preceding week and an increase of 6,045 cars above the corresponding week in 1943, as reported by the Ass'n of American Railroads.

Can Bill to "Hold" Points

Effective Jan. 21 at 12:01 a.m. the Interstate Commerce Commission canceled service order No. 160 issued Oct. 13 that prohibited billing cars of grain for orders to Glenwood, St. Cloud, Staples, Thief River Falls or Willmar, Minn.

The suspension was the result of a showing made by grain receivers of Minneapolis and Duluth that the order instead of conserving cars was causing unnecessary delay in movement and losses to country shippers.

Restriction on "Notify" Billing

In Service Order No. 174, as reported in last number, the Interstate Commerce Commission ordered that

s s 95.327 (a) Acceptance of carload shipments of grain, grain products, grain by-products, and seeds covered by order notify, or straight-advise Bs/L. No common carrier by railroad subject to the Interstate Commerce Act shall accept for transportation, transport or move carload shipments of grain, grain products, grain by-products, or seeds:

(1) When consigned to a "notify" party or to an "advise" party at a location other than the billed destination of the shipment;

(2) When consigned to a "notify" or to an "advise" party at the billed destination of the shipment, unless the "notify" or "advise" party is authorized to accept notice of arrival of the shipment and to furnish disposition orders to the carrier's agent at the billed destination.

Repeal Land Grant Rates

A repeal of land grant rates is advocated by J. B. Hill, pres. of the Louisville & Nashville Railroad, pointing out that

A contract made 75 years ago which in its original purpose has been fulfilled ought to be adjusted to present conditions. Under similar conditions, this railroad has revised many old contracts.

There is no more merit in asking the railroads to perform service for the government at reduced rates than to ask other business to do so. All other business and labor are paid at current rates and frequently very high ones.

Most railroads are paying very high tax rates, and any amounts which would be currently added to their net income by charging the government at commercial rates would immediately and largely be returned to the government through increased tax receipts from the railroads.

Almost all forms of commercial transportation competitive with railroads are receiving subsidies in the aid of construction and maintenance of the facilities they use for profit. Do the railroads deserve less than some compensating consideration?

Mr. Hill does not mention that a government agency intruding as a merchandiser of grain

can compete unfairly with the private dealer by taking advantage of land grant reduced rates.

A Repeater Gone Astray

Gilman, Iowa.—On June 16th, the Farmers Cooperative Elevator, managed by H. E. Jenks, loaded M. & St. L. car No. 22,220 and sent it on its way to the Piper Grain Co. at Cedar Rapids.

On Aug. 3, when some empties were set in for loading at this same elevator, there was M. & St. L. car No. 22,220.

On Sept. 6, that same car was back again for loading. On each trip the car was billed to the same Cedar Rapids firm.

On Oct. 6, there was that same car again, ready to be again loaded out. This time it was shipped to Bartlett, Frazer & Co., Chicago and getting into strange company, did not come back to Gilman.

Cars Arriving Leaking at Chicago

J. A. Schmitz, chief weighmaster of the Board of Trade, reports that during 1943 7,477 cars, or 7.38% of the total number of cars (grain only) arrived at Chicago leaking.

Of the total number of cars of grain arriving 4,165 or 4.11%, had grain door leaks, and 3,312 or 3.27% had car box leaks. And of the leaking cars 56% were leaking at or over the grain door, while only 44% were leaking at the car box.

Bulged grain door was reported in 1,248 instances, over grain door 2,492; end of grain door 425; at draw bar 229; at side of car 996; end of car 397; bottom of car 842; end or corner posts 534.

Books Received

STATISTICAL ABSTRACT of the United States, 1942, contains a wealth of material in tabulated form, on the occupations, transportation, volume of trade and manufacture, farming and construction, making a convenient reference manual. Prepared by the Bureau of the Census. The Government Printing Office; buckram, 1097 pages, price, \$1.75.

WARTIME INFORMATION for the Delivery Truck Operator is a handbook designed to extend the life of delivery trucks of all makes. Besides treating of the mechanical equipment, its care and repair, the book gives all the nationwide restrictions and regulations of wholesale and retail deliveries, with interpretations, made more valuable to the busy man by a copious index. By the Studebaker Corporation, South Bend 27, Ind. Paper, 52 pages.

WINTER WHEAT is a novel so real, so wholly American that every grain man and his wife can enter into its interests. Wheat grows on every page, wheat that is more than a symbol, wheat that is a deep-satisfaction. Mildred Walker, the author, knows Montana with its vast areas of loneliness, but she portrays love of the land almost as the Chinese and Russians feel it. Ellen Welb, the central figure, may have taken in this elemental love with her mother's milk for her tireless mother was Russian. Her father's heart lingered in New England. Ellen's lover, Gilbert Borden, is a sensitive well reared lad who visits the wheat ranch because he intends to marry Ellen. He is repelled by the stolidity of the peasant mother, the frustrations of the war-hurt father, the bleak loneliness of the surroundings. He doubts that he and Ellen could make their marriage a success. Ellen, for the first time sees thru his eyes. The growth of Ellen's understanding of her parents lives is superbly done—a moving story which is strong, sunlit and steadfast. Ellen makes her difficult adjustments with honesty and hope—and watching her, one grows braver, too. It is a mellowing experience to live vicariously in the lives of the Welb family. *Winter Wheat* is a clean American tale, simply directly told—one you will like to remember. Myrtle Dean Clark, Harcourt, Brace and Co., New York, N. Y., are the Publishers.

A New Section of Our Inland Waterways

By PAUL SEVERANCE.

Various branches of the grain and milling industry are taking speculative note of the current development of river transportation in the Tennessee Valley. There the dredging of 652 miles of deep water channels and the construction of four river terminals very definitely adds an important arm to the expanding system of our inland waterways. By linking the Tennessee with the Ohio and the Mississippi, through this chain of locks and a constant nine-foot navigation channel from Paducah, Ky., east to Knoxville, Tenn., grains can be barged down the Mississippi and Ohio rivers, then up the Tennessee to be consigned to southern mills which in turn distribute their products through the entire southeast.

The movement of grain to the Valley of the Tennessee has already gained important volume. Using privately owned barges or those supplied by some thirty-three public carrier services available on the inland waterways, barged grain has crowded closely on the heels of the river dredges. At Chattanooga, for example, the Mountain City Milling Co. has been importing the bulk of its wheat by river for three years. The grain elevator at Guntersville (Ala.), built by the O. L. Welles Co., was bought recently by the Cargill interests of Minneapolis, and is being operated to capacity. It is rumored that Cargill also considers the building of a storage elevator at Chattanooga or at Knoxville. The Alabama Flour Mills, at Decatur (Ala.) a subsidiary of a large Nebraska milling group, is operating at this terminal with an annual capacity of 1,500,000 bus. and with storage provision for 350,000 bus. It is understood that elevator capacity is to be increased to a million bushels just as rapidly as priorities will permit.

On the other side of the picture Alabama cotton planters, tempted by early spring cash crops and by the labor conditions and crop limitations in the west, are planning to plant substantial acreages in winter wheat. This crop will work well as an alternate for cotton and requires much less cultivation. It is an experiment so far but may lead to the extended planting of grain in large sections of the south.

The development of the Tennessee for the

promotion of domestic commerce has been overshadowed by the more spectacular features of TVA power improvement. Abundant low cost electric power, flood control and extensive programs of reforestation have caught the public fancy. Yet navigation is by no means a minor feature in the overall scheme of revitalizing the Tennessee Valley. The economies made possible by the movement of bulk freight by water have set in motion an enormous flow of supplies that originate in the Valley. This will be augmented by fabricated goods made in the south and funnelled into such river ports as Chattanooga for transshipment to assembly lines in the north and central states. The inward flow of traffic will bring in grains, coal, oil and forest products. The shipment of automobiles was reaching important volume when this traffic was interrupted by war, but this was promptly replaced by barged in jeeps and trucks for southern army camps.

Anticipating the increasing volume of freight traffic on the river the TVA recently completed a survey in which 3,700 shippers in 191 communities were questioned carefully concerning their own ability to use waterways. Results of this survey justified the estimate that as early as 1945 the movement of assorted freight over the Tennessee river will reach an annual volume of approximately 2,600,000 tons. With an average economy of \$1.30 a ton, as compared to rail tariffs, this will mean an annual saving to these shippers of \$3,500,000. Predictions for 1950 mount to staggering sums.

The four new terminals on the Tennessee are designed primarily to service package freight moved down the Mississippi and Ohio and up the Tennessee to such river ports as Chattanooga where the cargoes will be transhipped by rail or truck to southeastern distributing centers. The terminals have been built at a cost of \$600,000. The first was completed in Chattanooga and dedicated Aug. 27 with a gathering of inland waterway notables from a dozen states. Similar ceremonies followed at Guntersville and Decatur Sept. 24 and 25. The Knoxville terminal will soon be opened to traffic. The great improvement in this new channel of commerce and the providing of modern facilities for handling heavy freight brings a new vitality and new markets to an area that is rich in

opportunities. It is a field worth watching closely for surprising developments.

CCC Loans on Corn, etc.

The Commodity Credit Corporation through Jan. 15 had completed 2,591 loans on 3,074,845 bus. of 1943 corn in the amount of \$2,593,551.30. On the same date last year 22,125 loans had been completed on 26,986,777 bus. in the amount of \$20,835,995.38.

This is the first report on loans made at the 1943 corn loan rates, based upon 85 per cent of parity as of Sept. 15, 1943. United States national parity was \$1.06 a bushel on Sept. 15, 1943, as compared with 98.2 cents on the same date in 1942. Loans by States on 1943 corn follow:

State of Origin	No. of Loans	Farm-Stored (Bushels)	Amount Advanced
Ill.	338	476,430	\$ 422,829.84
Ind.	31	33,514	30,516.97
Iowa	1,544	1,822,922	1,522,065.83
Kans.	1	1,064	893.76
Minn.	135	118,415	98,805.36
Mo.	68	66,448	57,112.54
Nebr.	397	480,845	399,604.84
Ohio	3	1,353	1,281.64
S. Dak.	74	73,854	60,440.52

Totals 2,591 3,074,845 \$2,593,551.30

Combined farm and warehouse loans outstanding on other 1943 loan programs:

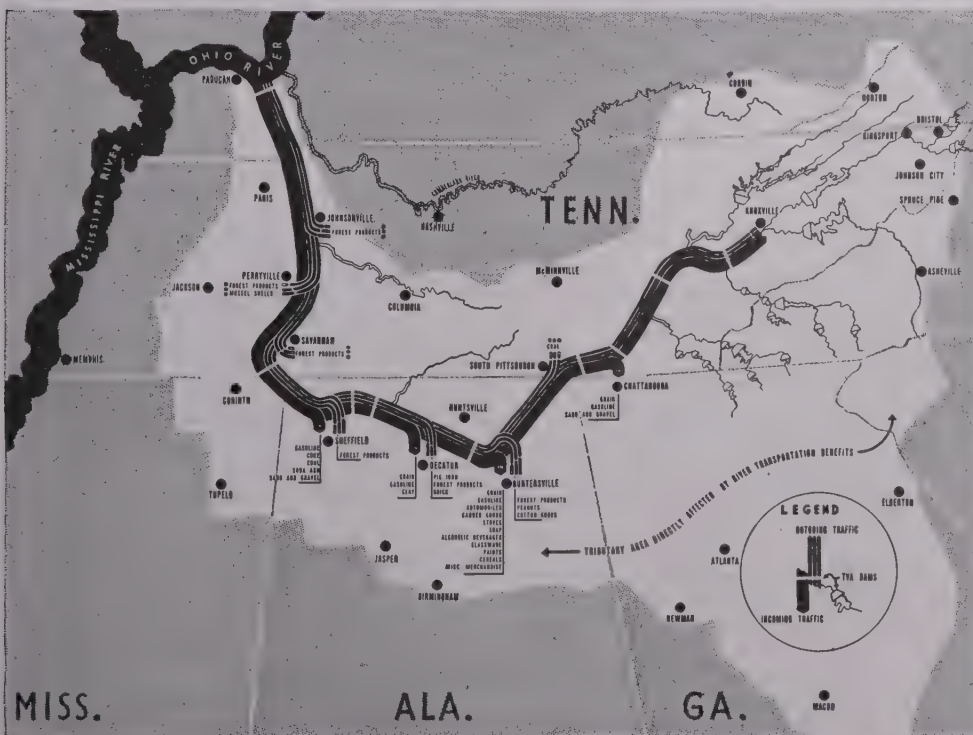
Loans	Quantity	Amount
Barley	726 650,963 bus.	\$ 473,376.46
Flaxseed	2,056 563,243 bus.	1,499,140.59
Grain Sorghums ..	14 20,097 bus.	16,941.44
Soybeans	351 173,858 bus.	319,756.76
Rye	182 119,982 bus.	89,956.28
Dry Edible Beans ..	78 7,905,112 lbs.	505,773.04
Dry Edible Peas...	93 3,581,980 lbs.	157,043.31
Hay & Pasture Seed	94 173,643 lbs.	19,654.35

CCC Wheat Loans

Commodity Credit Corporation through Jan. 15, 1944, had completed 120,797 loans on 128,958,013 bus. of 1943 wheat in the amount of \$160,906,294.65. The wheat loans made include 44,705,421 bus. stored on farms and 84,252,592 bus. stored in warehouses. The average amount advanced was \$1.25 per bushel, which includes some transportation charges from the area of production to warehouse locations. Redemptions to date amounted to 30,721,546 bus. of which 2,454,151 bus. were stored on farms and 28,267,365 bus. stored in warehouses. On the same date last year 528,183 loans had been completed on 399,682,481 bus. Loans by States follow:

States of Origin	—Loans Completed— Number	Bushels	Redemptions (Bushels)
Ark.	2	3,463	156,322
Calif.	46	362,150	1,081,609
Colo.	2,463	4,318,617	47,610
Del.	456	165,900	243,560
Idaho	981	1,967,611	32,165
Ill.	340	127,936	10,376
Ind.	90	44,244	28,058
Iowa	435	230,966	8,485,857
Kans.	23,552	23,196,458	9,933
Ky.	91	45,778	209,931
Md.	1,401	458,310	1,254
Mich.	26	5,718	668,748
Minn.	5,982	3,193,782	85,770
Mo.	362	131,184	2,081,037
Mont.	6,638	12,435,330	1,831,612
Nebr.	11,471	9,660,192	5,674
N. J.	33	10,763	166,838
N. Mex.	294	542,144	756
N. Caro.	5	756	5,819,140
N. Dak.	30,515	30,234,899	21,248
Ohio	264	60,897	2,966,012
Okla.	10,285	7,112,216	684,035
Ore.	1,897	6,111,767	19,896
Penn.	445	115,102	716,790
S. Dak.	8,540	4,802,373	8,187
Tenn.	284	77,380	3,862,965
Texas	9,977	12,735,159	35,714
Utah	104	218,114	9,223
Va.	118	36,013	1,331,642
Wash.	3,066	9,570,492	99,554
Wyo.	634	982,299	
Totals	120,797	128,958,013	30,721,516

A year ago the nation rallied behind the Scrap Drive. Now we are asking you to "take another look." Vast quantities of iron and steel scrap are still available. The mills are only about two months ahead of the scrap supply. Any additional manpower shortage or unfavorable weather condition could produce another serious scrap shortage. This must not happen!—Donald M. Nelson, chairman, War Production Board.



Developing Freight Traffic on the Tennessee River

Field Seeds

Princeton, Ill.—The Larson Seed House will be dissolved as a corporation.

Sikeston, Mo.—The Ballard Seed Co. is a new firm, in charge of Miss Ruth McCoy.

Cando, N. D.—William Row is engaging in the seed and feed business.

Benavides, Tex.—Eugene B. Momeny has opened Momeny's Feed & Seed Store.

Denison, Ia.—Harry Lueck has opened the Lueck Seed Co. in the Sibbert-Reimers building.

Creston, Ia.—Gail H. Hower has succeeded O. A. Boswell as manager of the Earl E. May seed store.

Memphis, Tenn.—The Southern Seedmens Ass'n will hold its annual convention here June 14, 15, 16.

Chicago, Ill.—The annual meeting of the American Seed Trade Ass'n will be held June 20 and 21 at the Palmer House.

Atlantic, Ia.—O. A. Boswell, manager at Creston, has succeeded Cole Moffett as manager here for the Earl E. May Seed Co.

Sebree, Ky.—The seed corn plant of Emerson Stull and brothers with 5,000 bus. of hybrid seed, burned Jan. 1, with a loss of \$35,000.

Omaha, Neb.—The Bonahoom Seed Co., of Hastings, has bought a 2-story brick building of the Gross Box & Mfg. Co., containing 32,000 square feet.

Marshalltown, Ia.—L. T. Hibbs & Sons will expand hybrid seed corn production in 1944 by the purchase of 280 acres of farm and the installation of a drier.

Ft. Wayne, Ind.—J. Ward Calland, vice pres., will direct the newly created agricultural research department of the Central Soya Co., for improvement of the soybean crop.

St. Peter, Minn.—Seedmen of Nicollet County will meet Jan. 26 at the call of Fred E. Wetherill, county agent, to plan distribution of quality seeds, and seed treatment.

Rockford, Ill.—Alfred A. Alneer, pres. of the Alneer Seed Co., died Jan. 6, aged 81 years. The seed company was formed in 1883. He is survived by a daughter and a son, Raymond J. Alneer.

Holdrege, Neb.—Farmers near Funk and Bertrand will plant 30 acres of Ranger alfalfa in Phelps County, according to Russell Batie, county agent. It is a new type of wilt resistant alfalfa.

Santa Barbara, Cal.—The office, records and 50 bags of seed burned Jan. 10, the fire starting from heaters in the office of the McCrea Seed Co.

Greenwich, Conn.—Peter Henderson, formerly pres. of Peter Henderson & Co., died Jan. 14, aged 56 years. He was a grandson of the founder of the firm, which has its principal offices in New York.

Nebraska City, Neb.—A meeting called by C. W. Swinbank, sec'y of the Nebraska Grain Improvement Ass'n, was held recently at the Bartling Seed House, one of a series of 8 meetings to promote the growing of better grain.

Topeka, Kan.—The Topeka Mill & Elevator Co. is charged by Paul Ijams, state seed inspector, with having sold 70 bus. of seed

wheat that germinated only 14 per cent, to Clifford Lewis, a farmer near Berryton. Trial is set for Feb. 1.

Ames, Ia.—An improved form of Iogold Early Sweet Corn is being released by the Agricultural Experiment Station. Since there are numerous sweet corn and yellow corn hybrids why not create a white corn hybrid to earn the market premiums paid for the white variety.

Lafayette, Ind.—The 1943 Indiana 5-acre corn club contest was won by Robert L. Osborn, 17, of Elnora, with a yield of 170.2 bus. per acre. He planted three kernels per hill of certified Indiana 813, hills 30 ins. apart and rows 38 ins. apart. Fertilizer was applied by the hill.

Los Angeles, Cal.—The California Seed Council held its regular quarterly meeting on Dec. 14, in the State Building. Suggested amendments to the new seed law were discussed and held for action to the next meeting which will be held in San Francisco on Mar. 10, one day previous to the meeting of the California Seedmens Ass'n.

Oklahoma City, Okla.—The following officers were elected by the Oklahoma Seedmens Ass'n at its meeting Jan. 13 in the Skirvin Hotel: pres., Earl Nichols, Oklahoma City; vice pres., W. S. Keller, Shawnee, and sec'y, (re-elected) M. C. McQueen. Opposition was expressed to any change in present germination test minimums under Oklahoma laws.—P. J. P.

Lafayette, Ind.—It has been reported that supplies of Ladino clover seed available in Indiana are small at the present time. However, there are small quantities of seed available in scattered areas, and most seed supply houses throughout the state have ordered this seed. Ladino, a new pasture crop introduced in Indiana just a year ago, is giving a good account of itself both as a poultry and a sheep pasture.

Toronto, Ont.—Ninety-four seed cleaning plants which have been subsidized by the Ontario Department of Agriculture to the extent of \$250 each, made a definite contribution to crop and food production by cleaning the following quantities of seed during 1942: Grains 1,041,212 bus.; Forage crop seeds 4,484,569 pounds; farmers served 15,368. Grants were paid on five new plants including a portable plant in Sudbury District.

Canada Thistle in Commodity Credit Wheat

C. H. Keltner, superintendent of plant industry, state of Illinois, warns that the movement of grain for feed or seed containing the seeds of Canada thistle or other noxious weeds into the state of Illinois thru the medium of Commodity Credit Corporation is a matter of great concern.

Frequently the presence of noxious weed seeds in grain is not realized until too late. If seed dealers and growers will submit to the Illinois Seed Laboratory, Springfield, a representative sample of one grain or more by special delivery mail an immediate examination will be made and results reported.—P. J. P.

Large Attendance at Farm Seed Convention

The Farm Seed Division of the American Seed Trade Ass'n held its midwinter meeting at the Palmer House, Chicago, Ill., Jan. 17, with Chairman Carl Barnum presiding.

Rider Freeman, sec'y, read the minutes of the preceding meeting, and reported on the work of his office.

W. A. WHEELER of the Food Distribution Administration described lend-lease operations, and said a large quantity of red clover seed must be found for shipment to Great Britain.

DR. ASHER HOBSON, of the University of Wisconsin Department of Agricultural Economics, analyzed food subsidies, and argued against them.

GEO. EDLER, of the U.S.D.A., figured that the 1943 crop of red clover seed was 11 per cent over the crop of 1942, or 68 million pounds. He said that farmers were holding back their seed for later sales to farmers and for their own use.

FRED C. HART, of the seed and rice section of the O.P.A., asked the co-operation of the seed trade.

E. H. SEXAUER, Brookings, S. D., pres. of the American Seed Trade Ass'n, gave the visitors a cordial invitation to attend the annual meeting next June.

JAS. YOUNG, Chicago, Ill., executive Sec'y of the A.S.T.A., replied to questions about O.P.A. regulations.

Buying corn from farmers above ceiling prices is the charge against the following elevator operators in Nebraska: Donald Gammel, Shelton; John Priest, Elsie; J. W. Warrick, sr. and jr., Meadow Grove; J. H. McVicker, Albion; Arvid Johnson, Genoa; Joseph Johnson, Newman Grove; H. Hanneman, Albion; Kenneth W. Carter, St. Edwards; Henry B. Bothe, Lindsey.

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Yields of Bean Varieties

In his annual report just issued P. M. Dewan, Ontario Minister of Agriculture, gives the bushels per acre yields of different varieties of beans at the Western Ontario Experimental Farm, in 1942, as follows:

E.F.R., 49.27; Wisconsin Robust, 49.27; Michigan Robust, 48.41; Navy (Wigle), 48.41; Guelph Selected, 47.98; Ithaca Robust, 47.54; Michelite, 46.68; Blue Pod, 39.76; Burbank (Alberta), 38.90; Yellow Eye, 34.58; Red Kidney, 34.58; Pinto, 32.58; B.C. White, 31.98; B.C. Speckled, 26.80; Alberta Brown, 12.97.

"EFR," Michelite and the different types of Robust beans gave the largest yields. Michelite was slightly down in the test this year but continues to give the highest average over a period of the last five years. It is also slightly earlier than the Robust and, in most cases, freer from disease.

Farmer Must Certify Seed

Grain sold on the producers farm for seed must be accompanied by a placard or written statement certifying the quality for the purchaser. Iowa's seed law requires that such seed be accompanied by the following information:

(1) Number of secondary noxious weed seeds per pound; (2) Percentage of germination; and (3) Freedom from primary noxious weed seeds.

There is no law requiring sellers to have the seed tested or examined at any particular laboratory. R. H. Porter, director of the Iowa State College Seed Laboratory, has stated that the seller may make his own examination and test, provided it is accurate. However, most producers hire this work done for them and Porter states that numerous seed companies are well equipped and qualified to make an official examination and test. A small fee is charged for the service.

New Rust Resistant Durums

By T. E. STOA, Agronomist.

Two durum wheats, Carleton and Stewart, were released by the North Dakota Agricultural Experimental Station in the spring of 1943. These new durums are products of the durum wheat improvement program carried on co-operatively with the Division of Cereal Crops and Diseases, Agricultural Research Administration U. S. Department of Agriculture. Both varieties are from Mindum x Emmer ("speltz") crosses, made to obtain the high rust resistance of the emmer parent and back-crossed twice with Mindum to recover the more desirable characteristics of Mindum, particularly kernel type, color and semolina quality. Carleton and Stewart are highly resistant to the durum "races" of stem rust commonly found in this area on Mindum and Kubanka, and in tests to date have appeared to be very satisfactory in semolina quality.

About 395 bus. of Carleton were released in lots up to 10 bus. each to 40 farmers who co-operated in its increase in 1943. From this initial distribution about 6,000 bus. are now available for sowing in 1944. Farmers report an average yield of about 20 bus. per acre. Carleton is slightly later in ripening than Mindum, has a stronger, coarser straw and carries its head more erect. The kernel is shorter and more plump than Mindum and like Mindum is without brush. Its outstanding merits over Mindum are higher rust resistance and stronger straw.

A total of 1160 bus. of Stewart was available for distribution last spring. This was released in lots up to 20 bus. each to 61 co-operating farmers. Reports on hand indicate that from this distribution about 18,000 bus. will be available for sowing in 1944. The average farm yield reported for 1943, including several fields partially hailed or drowned out, was about 20 bus. per acre. Stewart is slightly later in ripening than Mindum, is less subject to shattering, has about the same strength of

straw, a kernel of good amber color and no brush. The merit which Stewart has over Mindum is distinctly higher rust resistance.

Seizures Under Federal Seed Act

The Food Distribution Administration has just released reports of prosecutions during the first half of 1943 under the Federal Seed Act.

Fines ranging from \$25 to \$105 were imposed on 10 firms.

Not guilty was the verdict in the case of W. P. Bell & Co., Nashville, Tenn., where the court said:

The Court holds that under the proof when this defendant had sent these oat seed immediately upon arrival to the Nashville Grain Exchange and had them inspected and classified, and then had them cleaned and then had them re-inspected by another laboratory and classified there and their report showed that they were 95 per cent Fulghum oats, that that was all that he was required to do under the statute and having kept record of those facts and having taken all proper precautions to insure the identity of the oats, that he was entitled to the exemption set forth, which I have just read you because I don't know hardly what else he could have done to insure the quality of these oats. * * * So the Court holds, as far as the seventh count * * * is concerned, that he has fully complied with the terms and provisions of the act.

The Cedar Vale Co-operative Ass'n, Cedarvale, Kan., on a plea of guilty was fined \$50 and costs for representing a carload of sorghum seed shipped to Aberdeen, S. D., to have a germination of 82 per cent, when it was found to germinate only 45 per cent.

The Northern Field Seed Co., Winona, Minn., was fined \$105 on a plea of guilty to the charge of false labeling of sweet clover seed and pasture mixture seed.

Labels attached to the bags of sweet clover seed represented the seed in part to have a germination of 66 per cent with 6 per cent hard seeds, to contain no noxious-weed seeds, 3.05 per cent weed seeds, and 0.85 per cent inert matter and to be a "Morgan" variety of sweet clover; whereas, a sample representing the seed was found in June, 1941, to have a germination of 32 per cent with 2 per cent hard seeds remaining, to contain 107 noxious-weed seeds in 50 grams examined and to contain 5.79 per cent weed seeds and 2.50 per cent inert matter. In addition, "Morgan" is not a recognized name of a variety of sweet clover.

The Belt Seed Co., Baltimore, Md., was fined \$25 on a plea of guilty to false labeling of bluegrass seed.

Labels attached to the bags represented the seed in part to be "Domestic Grown Canada Bluegrass Purity 64.90% Poa Species"; whereas, a sample representing the seed was found to be a mixture of 51.41 per cent Canada bluegrass seed and 20.35 per cent timothy seed, the latter having a germination of 28 per cent in December, 1941.

W. O. Fry, Ashley, Ill., was fined \$100 and costs on a plea of guilty to having shipped 16 bags of sweet clover seed to Baltimore, Md., represent to have a germination of 90 per cent, while it was found to have 32 per cent with 30 per cent hard seeds remaining.

The Roberts Seed Co., Farwell, Tex., was fined \$80 on a plea of guilty by M. C. Roberts to having shipped 150 bags of sorghum seed of which a sample germinated only 31 per cent; 40 bags of sorghum seed containing Johnson grass seed at the rate of 22 per pound, and 100 bags of sudan grass seed containing 39 Johnson grass seed per pound.

Oregon's Large Seed Producer

Dallas, Ore.—Polk county has received national recognition as a seed producing area. Further evidence of the importance of this industry in this county is noted by the appointment of many Polk county farmers on the important committees of the Oregon Seed Growers League, which was held in Salem. Among those seed experts and growers named on the various committees are:

Winter Cover Crop Committee: Glen Martin, chairman, McCoy; Machinery Committee: B. C. Bell, Rickreall; Frank Farmer, Rickreall; Claude Hoisington, Dallas; Claude Larkin, Rickreall. Legume Seed Committee: George R. Cromley, Rt. 4, Salem; R. W. Hogg, Salem; J. B. Lorence, Monmouth; Ed Riddell, Monmouth; J. S. Rowland, Rickreall. Grass Seed Committee: John Dickinson, Independence; Charles A. Evans, Independence; Bob Mitchell, Amity. Edible Pea Committee: Wiley Gardner, Rt. 1, Dallas.

The income from seed crops in this county has reached well over one-half million dollars a year, the principal ones having been hairy vetch, Willamette vetch, ryegrass, common vetch and Austrian peas.—F. K. H.

Bean Seed Sales Now Regulated in Arkansas

With the exception of packet seeds, bean seed for planting purposes (including both snap and lima beans) will hereafter be regarded by the Arkansas Plant Board as field seeds, and must therefore meet the requirements governing sale of field seeds, as follows: Each bag must bear one of the Board's permit tags, on which must be shown (a) the seedman's or vendor's name and address, (b) the kind of seed, (c) the lot number, and (d) the name of the state in which grown, or if unknown a statement to the effect. The complete analysis of the seed must also be given on the tag, including (a) percentage of purity, weed seeds, other crop seeds, and inert matter, (b) name and number of noxious weeds per pound, (c) percentage of germination (exclusive of hard seed) and (d) the date of

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test, which must have been made not more than six months previously.

Seedsmen who wish to secure permit tags should write to the State Plant Board, Little Rock, for an application blank. The application fee is \$1, and the price of the permit tags is 2 cents each. The permit tags will be provided with blanks in which to place the required information, or, if preferred, the seedsmen can give the required information on a tag of his own, to be attached to the bag, along with the permit tag.

Beans which come into the state without permit tags attached will be withheld from sale until permit tags are provided by the seedsmen, or the Arkansas merchant himself may apply to the Plant Board for permit tags, after analysis has been made of the seed.

Oregon Seed Growers Meet

The Oregon Seed Growers League held its annual meeting at Salem, Jan. 18, a leading speaker being Frederick C. Hart, of the seed section of the O.P.A. at Washington.

Growers stated their objection that under the present definition a grower *cannot* qualify to obtain the processor's wholesaler's and retailer's margins, even if he performs all of these functions. E. R. Jackman, a delegate, brought out that the regulations in this regard bearing down on the seed grower is different than that, for example, of the seed potato grower. In some instances, such as clover seed, a small margin is allowed but it was stated under the general workings of the definition of a grower he is precluded from functions which he has performed in the past, or, at least, from getting the margin on them. For instance it was pointed out that under the definition of a wholesaler, he is one who both buys and sells and the producer performing the wholesaler's function is one who merely sells his own product and thus he is excluded from coming under the advantages gained by the wholesaler.

Mr. Hart said there were "bugs" in some of the directives because they were written in Washington, far away from many parts of the country, and by those who were without actual knowledge of various trade practices which have grown up in different parts of the country, and so they were not entirely applicable to such practices.

O. S. Fisher, extension agronomist from Washington, D. C., discussed shortage of many forage seeds and indicated that growing of these seeds, such as ladino clover, will have an important bearing on increase in dairy production.

Closing one of its most successful conventions, the League named Joe Harland, Rick-reall, as pres.; Bernal Hug, Elgin, vice pres. re-elected; E. R. Jackman and Clifford Smith, Oregon State College re-elected sec'y-treas. and assistant treas., respectively.—F. K. H.

Stock May Be Poisoned by Grass

The mixed feed sold by the dealer and compounded by him or the manufacturer is not always the cause of death of farm animals. In fact, farm stock practically never is poisoned by the feed.

Rex Beresford, Iowa State College extension livestock man, says that farmers should prevent their livestock from grazing on stunted, frosted or second-growth plants of sudan grass or sorghums. Such plants may have formed the poison, prussic acid.

Normally, sorghums and sudan do not contain prussic acid, but harmless compounds called glucosides. When the plants are damaged, a reaction takes place in which the compounds are broken down, forming free prussic acid. Green plants eaten at this stage are likely to prove fatal.

Beresford says that he has never known of cattle being poisoned by prussic acid where silage was made from the sorghum or sudan grass.

The WFA Hemp Program

The War Food Administration has announced that the 1943 Government hemp program has resulted in the production of approximately 370,000 tons of hemp straw. This quantity is expected to yield more than 100,000,000 pounds of fiber.

The purpose of the program is to obtain fiber for use in the manufacture of cordage for military and civilian needs. The line fiber produced from hemp grown under Government contract with farmers in 1943 and 1944, will be allocated by the War Production Board to manufacturers for use in the manufacture of rope and twine.

Government Hemp Mills to Close

Fred E. Butcher of Chicago, Pres. of Hemp Industries, Inc., has announced that of the 42 hemp mills built with government funds supplied by the Defense Plants Corporation 28 will be closed as not needed, now that it is possible to import hemp from Central America and the Mediterranean area.

The plants cost approximately \$100,000 each.

The War Food Administration has announced that contracts will be offered farmers in Illinois, Iowa, Minnesota, and Wisconsin for the production of about 60,000 acres of hemp in 1944. Ample seed to plant the crop will be available from the acreage grown for seed in 1943 under Government contract in Kentucky.

The war hemp program was started in 1942 when supplies of both Manila hemp from the Philippines and sisal from the Dutch East Indies were cut off, and shipments from other areas were curtailed.

Ceilings on oats, barley and grain sorghums were considered at hearings held at Chicago, Jan. 7, 8; Kansas City, Jan. 11, 12; and Fort Worth, Jan. 13, 14, by Chas. Kenney, senior price specialist, followed by C. S. Gordon of the O.P.A.

The inventory of malted grain as of Dec. 31, was estimated at 12,500,000 bus. which was 1,000,000 bus. more than on hand as of Jan. 1, 1943. This is enough to permit brewing operations during 1944 at the same rate as during 1943. The hop supply also is estimated to be adequate for 1944 needs, provided it is equitably distributed.

Supply Trade

Milwaukee, Wis.—Allan E. Hall, for the past 20 years head of the milling department of Allis-Chalmers Mfg. Co., died Jan. 17.

Marysville, Mich.—Fire recently destroyed the Morton Salt Co.'s largest midwest plant, razing principal buildings and causing damage estimated at more than \$2,500,000.

The Dalles, Ore.—W. E. Melena and J. H. Altendorf, for many years connected with the Hogenson Construction Co. recently organized Western Builders, to engage in the design and construction of grain elevators, feed mills and related structures.

An F.D.A. commodity code number is required on each bag of dry edible beans and peas delivered to the Federal Surplus Commodities Corporation under contracts made after Jan. 18. For example, the code number for No. 1 blackeye beans is 4105101.

Schenectady, N. Y.—Orders received by the General Electric Co. during the year 1943 amounted to \$1,360,643,000, compared with \$2,003,039,000 for 1942, a decrease of 32 per cent, Pres. Gerard Swope has announced. Cancellations of orders during the past year totaled more than \$450,000,000.

Washington, D. C.—Overall supply of copper wire and cable is adequate, but that wholesalers in some sections have experienced temporary difficulty in meeting demand for some types. A copper division official pointed out that facilities for flexible cords are extremely tight at present. Civilian supply could be expected to improve early in 1944. In view of this fact, the committee did not ask for alteration of present distribution practice.

A new process of cooking grain mash for alcohol production has been given by the inventor, P. A. Singer, to the government free of royalty. A saving of 50 per cent in fuel is estimated. Singer is with the Century Distilling Co., of Peoria.

The Grain & Feed Dealers National Ass'n has transferred Graddon Swanson from Washington to the St. Louis headquarters, and Norris Burke, formerly chief counsel of the grain and feed section of the O.P.A., will be on Mr. Bowden's staff at Washington.



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Feedstuffs

Fish Liver Oil is now being produced in Africa, from sharks which are caught in deep water.

A feed specialist as a "technician" is entitled to extra gasoline mileage. The extra mileage is not allowed to salesmen.

Brewers Dried Grains production during December amounted to 17,900 tons, against 17,000 tons during December, 1942, as reported by the F.D.A.

Buffalo, N. Y.—The 100,000 bus. of Canadian oats held here as feed oats will be inspected for seed, if a recommendation of the W.F.A. is carried out.

Private firms now are allowed by the W.F.A. to import babassu kernels from Brazil, but the use of the oil will be controlled as before by F.D. order No. 43.

The W.P.B. has purchased 500,000 gallons of blackstrap molasses to be distributed to feeders in seven southern states by the Manard Molasses Co., to be mixed by farmers with their roughage.

Dallas, Tex.—In addition to 100 carloads of soy meal shipped to the Panhandle in December, 100 more are en route or booked for shipment in the next ten days, C.C.C. officials said.—P. J. P.

Washington, D. C.—The C.C.C. is collecting data from the feed industry on the amount of feed wheat purchased in 1943 as the basis for allotment in 1944. The total tonnage of all feed sold is required.

Chicago, Ill.—Jan. 27 a general conference of the dog feed industry will be held here, having been called by the dog feed division of the American Feed Manufacturers Ass'n, of which E. P. MacNicol is sec'y.

Washington, D. C.—The W.P.B., Jan. 21, amended its molasses conservation order, M-54, to prohibit the use of the beet product in mixed feed. The beet molasses crop is short 35 per cent. Feed mixers can use cane molasses.

Nappan, N. S.—At the experiment station cull potatoes mixed with oats and wheat are being fed to livestock. White fish meal, 10 to 15%, and mineral supplement 3% are added to the ration, the potatoes being fed to offset the grain shortage.—W. McN.

Kansas City, Mo.—All feed manufacturers in the six states surrounding this city have been invited by Lewis Selders, chairman of the program committee, to attend a meeting here at 10 a.m., Feb. 4, to form an organization if deemed advisable.

Columbus, O.—State Feed Advisory Committee has been named to allocate protein meal. Chairman is Christ Kainrad, a dairyman; and Elton Kile, Pres. of the Ohio Grain, Mill & Feed Dealers Ass'n, is one of the 12 members.—P. J. P.

Manhattan, Kan.—The State Feed Advisory Committee had its first meeting Jan. 15. Included in the membership are W. L. Drake of the Humboldt Milling & Elevator Co., Oscar Straube of the Nutrena Mills, and Clair Curry, feed dealer of Tribune.—P. J. P.

Because it is expected that Government requirements in linseed oil now can be purchased in the open market, the Food Distribution Administration has terminated Food Distribution Order No. 56 which required flaxseed crushers to set aside 25 per cent of their production on option to F.D.A.

Washington, D. C.—Purchases of all feedstuffs abroad with the exception of Canada have been placed by the Foreign Economic Adminis-

tration with the U. S. Commercial Co., discontinuing the foreign commodities division of the C.C.C. The U.S.C. Co. will buy all foreign foods except sugar.

St. John, N. B.—Formerly grain from the west arrived in 10 days, now it takes 10 weeks. Eastern Canadian feeders are pooling to buy car lots of whole grain, and there is talk of importing feeds and unground grain from South America. Stockmen claim they will have to kill off their livestock unless they get adequate supplies to feed the animals to the usual marketing stage.—W. McN.

Kansas City, Mo.—Feed manufacturers of Kansas met here Jan. 12 to consider the division of the protein feeds awarded Kansas. A meeting will be held again in February. Dissatisfaction was expressed with the purpose of the state committee to turn over the protein feeds to feeders instead of making a more economical use of them in mixed feeds. It was the consensus that mixed feed consumers be instructed to complain to county and state committeemen in addition to their manufacturers when they get insufficient feed.

Washington, D. C.—The W.F.A. has prohibited the shipment of soybean oil meal into the following states: North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Arkansas and Louisiana. On Feb. 1 the list of states is extended to include: Oklahoma, Texas, New Mexico, Arizona, Nevada and California. Deliveries of soybean oil meal may be made in these states only from processing plants located in these states. Persons who had previously contracted for outside supplies must now arrange with the Commodity Credit Corp. to fill the orders from processing plants located within the designated states.

Topeka, Kan.—Sheep and lamb feeding operations, the smallest since 1940, have been curtailed this winter principally because of the lack of wheat pastures in the western part of the state. Only in Pawnee, Ford and Hodgeman

counties and other local areas of the west has wheat made sufficient growth to permit pasturing. A heavy covering of snow during most of December forced a considerable number of lambs to market. A larger number of lambs were on feed in commercial feed lots Jan. 1 this year than a year ago. This year's number on feed was 321,000 or the same as the 10-year (1932-41) average and compares with 924,000 a year ago.—H. L. Collins, agricultural statistician.

Production of By-product Feeds

The tonnage of by product feeds produced during November, compared with November, 1942, in parentheses, as reported by the U. S. Dept. of Agriculture, in thousand tons was: wheat millfeeds, 445 (394.3); cottonseed cake and meal, 290 (314); gluten feed and meal, 80.6 (84.6); distillers dried grains, 31.4 (30.6); brewers dried grains, 17.3 (15.7); peanut cake and meal, 16.7 (9.3); soybean cake and meal, not available (194.4); linseed cake and meal, not available (71.1).

Stocks at the end of November included 65,400 tons cottonseed cake and meal, against 117,400 tons a year earlier.

Feed Men of Maine Organize

For the mutual benefit of all in the industry and to aid in solving problems in the distribution of feed, the procurement of supplies and to represent the industry in discussions with federal agencies fifty feed dealers met at Augusta recently and formed the Maine Feed Manufacturers and Dealers Ass'n.

Carl R. Smith, state commissioner of agriculture, called the group together at the state capitol, pointing out the need for such an organization.

Officers elected are: pres., Robert H. Sawyer of Lewiston; sec'y-treas., L. J. Swetland of Bangor; directors, Stephen J. Cummings, Norway; Morrill Harper, Saco; Garwood C. Bowers, Lincoln; L. A. Gray, West Sullivan; H. A. Hawes, Union; Charles H. Watson, Skowhegan; M. B. Cohen, Portland; Frank D. Reed, state extension poultry specialist, Orono, and W. H. Ray, Anson.

Vail, Ia.—Tracy North, elevator operator, was fined \$770.88 in the district court at Sioux City for selling corn above the ceiling price.

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Poultry Feeds and Feeding

St. Paul, Minn.—The Minnesota Turkey Growers Ass'n held its annual meeting Jan. 18 at the St. Paul Hotel. Roy Baumgartner, of Litchfield, is sec'y-treas.

Salem, Ore.—John Dasch, spokesman for a Willamette valley poultrymen's group, has asked the federal government for sufficient feed to assure regular feeding of flocks, which have now been reduced in many sections.—F. K. H.

Chicago, Ill.—At the meeting of the National Poultry Advisory Council Jan. 10, Walter C. Berger reported that the allocation of protein feeds had been decided, by states, leaving the distribution to state committees. Cliff D. Carpenter, executive sec'y, reported a total membership of 48, and that 2,802,750 copies of the Council's booklets have been sold and distributed. Fifty radio programs have been presented.

Factors for Feather Pigmentation

Rhode Island Red chicks at 6 weeks of age failed to develop normally pigmented feathers on a diet containing 66.75 parts of degerminated yellow corn meal, 15 of peanut meal, 10 of purified casin, 3 of soybean oil, 0.25 of reinforced cod-liver oil, and 5 of a salt mixture. Thiamine, riboflavin, pyridoxine, d-calcium pantothenate and glycine were added in adequate amounts.

When the basal diet was supplemented with 5% of dried brewers' yeast, no abnormalities in feather pigmentation and development were observed. The abnormality was not caused by a deficiency of biotin, since intramuscular administration of this vitamin had no influence upon pigmentation. Further expts. are being conducted to determine whether the preventive factor is p-aminobenzoic acid or inositol.—*J. Biol. Chem.*

Newer Knowledge of Poultry Nutrition

By RAYMOND T. PARKHURST of Massachusetts State College

New knowledge may be that which is recently recognized or that which has existed but a short time. The present emergency has made it necessary for the Northeast feed mixer or poultry raiser to use some new products and larger quantities of some of the usual products because there just has not been anything else he could do. Although slightly better results can be obtained with a mixture of several grains, it is quite possible and, at present prices, often more profitable to feed whole wheat as the sole scratch feed ingredient. It is quite possible to feed 40% of ground wheat in all mash rations to chickens and 40% of either coarse ground (or flake) wheat, ground barley or ground oats in all mash laying or breeding rations, provided they are otherwise adequate. This is old knowledge newly recognized because most of the yellow corn we used to get in the Northeast is being used to overfatten hogs in the corn belt states. It is not inconceivable that wheat may become the only grain that is available in any quantity in the Northeast.

Present research has shown that a riboflavin unit from any one source is equal to that from other sources. In other words, synthetic riboflavin can be used with as much assurance as milk by-products, fermentation and distiller's by-products, dried yeast, alfalfa meal, etc.

Recent (1942) assays at the Massachusetts Agricultural Experiment Station control service showed the amounts of riboflavin in some of the feed products available in New England to be as follows: skim milk powder 17.7 to

21.6; dried buttermilk 27.3 to 30.7; meat scraps 6.3 to 8.6; animal liver meal 11.6 to 3.6; alfalfa meal 9.1 to 20.8; Cerogras 24.5; Flaydry 11.7; Flavonne 10.5; B-Y concentrate 102.4; Paco Riboflavin Supplement 51.4; corn distillers' grains (without solubles) 0.6 to 3.9 (with solubles). It must be realized that some products carry considerably more of the other factors of the B-G complex than others.

Heating Destroys Some Nutrients in Chick Ration

The growth of White Leghorn chicks on a heated grain diet (Abst. 263, Vo. 3) slightly modified, was not stimulated by supplements of vitamin B-1, riboflavin, vitamin B-6, choline and 2-methyl-1:4-naphthaquinone. Dermatitis was prevented with addition of calcium pantothenate. Further additions of p-aminobenzoic acid, vitamin K, inositol and choline were without effect but growth was improved by adding factor U, the eluate with alkali from a fuller's earth adsorbate prepared from the fraction of yeast soluble in a mixt. of methyl alcohol and water.

It is concluded that pantothenic acid, biotin and one or more nutrients included in factor U are destroyed by the dry heat treatment of the grain diet.—*Journal of Nutrition.*

Corn Saving Ration for Poultry

"Stretch the corn supply" might well be a patriotic slogan or Indiana poultrymen in 1944, say Purdue University agricultural extension officials. Corn is one of the best poultry feeds, but when it is scarce, wheat and barley may replace a large amount of the corn.

On good pasture, poultry needs yellow corn only in the mash. Oats are a good poultry feed but should make up no more than one-fourth of the total ration. Poultry kept inside need at least one-fourth of the grain as corn. The rest may be either wheat or barley with bright green hay to supply vitamin A.

For chicks, pullets, or hens on pasture, the

following mixture may replace all or part of the corn in the mash: wheat or barley, 300 pounds; oats (wheat or barley), 100 pounds.

The following mixture may be ground and used to replace corn in the mash of layers that are kept inside: corn, 100 pounds, wheat or barley, 200 pounds; oats, (wheat or barley), 100 pounds. When this mixture is used to replace corn, three per cent of good quality alfalfa leaf meal or one per cent of an oil high in vitamin A should be added.

Results of Vitamin A Deficiency

By G. F. HEUSER of Cornell

Vitamin A, like the other vitamins, is essential for growth, reproduction and the maintenance of health.

Where there is only a partial vitamin A deficiency the cause may be overlooked because the symptoms are not marked. Losses may be small and production affected only in part. Undoubtedly many of the cases reported as head colds with a watery discharge from the nostrils and eyes, sinusitis and visceral gout are cases of vitamin A deficiency.

Whenever there is a prolonged deficiency in the ration, a nutritional-deficiency disease develops. In the case of vitamin A deficiency, known as xerophthalmia, the secretions of the tear glands, the salivary glands, and the mucous glands of the intestinal tract dry up. Certain tissues, such as the margins of the eyelids, become granular. Infection may set in and where it attacks the eyes, a viscous fluid is produced which causes the eyelids to stick together. There may be an accumulation of white, cheesy material in the eyes which results in blindness.

Vitamin A deficiency is often accompanied by the development of creamy white pustules, pinhead in size or larger, on the lining of the roof of the mouth and along the esophagus. Excess urates may be deposited in the kidneys so that these organs enlarge and appear grayish white in color due to a network of fine white lines.

Afflicted birds are usually listless, inactive, and droopy. They are of low vitality and have pale beaks and shanks. They walk in an unsteady or peculiar weaving or zigzag manner and finally are unable to stand. After this, death soon occurs.

In the case of chicks, there will be retarded growth. Besides, the chicks will appear un-

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thrifty and generally show ruffled feathers. In the case of hens, a deficiency of vitamin A will result in lower production and poorer hatchability.

RECOMMENDATIONS TO POULTRY-MEN.—It is possible also for the poultryman to take some measures to supply margins of safety and to protect against the development of nutritional deficiencies by making use of leafy roughage to the fullest extent possible. Leafy roughage for poultry includes pastures, good legume hay and grass, or legume silage. Hens will readily consume the leaves of good alfalfa or clover hay if supplied in suitable racks. Grass or legume silage is readily consumed at the rate of 4 to 5 pounds a day per 100 hens. Chicks and growing pullets and breeders eat considerable quantities of grass when allowed to range on improved pastures that are mowed frequently enough to keep the grass in a succulent state. Green, leafy material is rich in vitamin A, and hence as long as birds are on good pasture there should be no danger of a deficiency. Temporary forage crops such as oats, wheat, rye, barley, kale, rape, spinach, swiss chard, soybeans, and cowpeas can be used. Fall sown cereal grasses will provide early spring pasture. Sprouted grains at any season of the year are also a possibility.

Manganese in Poultry Nutrition

Interest in the nutritional significance of manganese has been revived recently by the demonstration of its association with certain poultry disorders. The manganese requirements of fowl, particularly of the chicken, are much higher than those of any mammal studied. For this reason, deficiency symptoms in the chick are more readily apparent and of a more severe nature than those in other animals.

One of the most important manifestations of manganese deficiency in the chick is the development of the condition known as perosis or "slipped tendon." This disease was first described in the literature about fifteen years ago and since then has stimulated a great deal of research. Perosis is an anatomical deformity of the leg bones of young chickens, turkeys, pheasants, grouse and quail. It is distinct from rickets inasmuch as calcification of the bones involved is normal.

SYMPTOMS OF PEROSIS: Perosis is characterized by a gross enlargement of the hock or tibial-metatarsal joint, a twisting or bending of the distal end of the tibia and of the proximal end of the metatarsus, and slipping of the gastrocnemius tendon from its condyles. The latter symptom causes complete crippling in the affected leg. If both legs are so affected, death usually follows.

Investigators studying this disease had noticed that feeds containing large excesses of calcium and phosphorus frequently aggravated the condition. It was with some surprise, therefore, that a group of research workers at Cornell University noted a curative or preventive effect while administering a series of calcium-phosphorus compounds designed to induce perosis. These workers, Wilgus, Norris and Heuser, had been incorporating in the chick feeds a number of such compounds, including chemically pure monocalcium phosphate, dicalcium phosphate and tricalcium phosphate, and had found that all increased the severity of the perosis. The use of a technical grade of monocalcium phosphate, however, prevented the disease.

This unexpected effect could be attributed only to an impurity in the technical grade preparation. This material was therefore fractionated in order to seek out the impurity possessing anti-perotic properties. At the same time, a spectrophotographic analysis of the original material was made, revealing manganese and iron as the two main impurities. The same impurities were found in the active fraction, while the inactive fraction contained only calcium, sodium and aluminum.

Furthermore a careful analysis of wheat germ,

known to be an effective anti-perotic material, revealed large traces of manganese as well as lesser amounts of magnesium, zinc, sodium, potassium, calcium and phosphorus. A final analytical study was made in which the ash of the hocks of normal and afflicted birds was compared. Manganese was found in the normal bone ash, but was entirely absent from the abnormal bone ash.

On the basis of this circumstantial evidence, manganese was added directly as a supplement to the basal diet in order to observe its effect on the development of perosis. (Because of their coincidental occurrence, the effects of iron, aluminum and zinc were also tested). In all cases, the addition of manganese prevented nearly all the symptoms of perosis. Aluminum and zinc had very slight beneficial effects, while iron was quite ineffective.

Following this experiment, a number of feedstuffs were analyzed for manganese content. It was found that those feedstuffs which are known to be most effective in the prevention of perosis are usually rich in manganese.

The necessity of manganese for the prevention of perosis has since been confirmed by a great many investigators in poultry nutrition.

MANGANESE REQUIREMENT OF CHICKS: The minimum perosis preventive amount of manganese depends upon several factors of which the manganese content in the ration of the mother hen and the calcium and phosphorus content of the chick's diet appear to be the most important. An intake of 35 to 40 parts per million manganese is suggested by Insko *et al.* This requirement has been shown to vary with the breed of chicks, certain New Hampshire chicks being more susceptible to the disease and therefore requiring more manganese than, for example, White Leghorns. Fairly large supplements of manganese have been given without evidence of toxicity (646 to 1000 p.p.m. manganese).

Continued studies on perosis in poultry have revealed the fact that other dietary factors, in addition to manganese, play an important part in the prevention of this disease. It is now generally accepted that a so-called "anti-perosis complex" exists, embodying at least four nutritional factors. These include manganese, choline, biotin and an unknown organic nutrient found in an aqueous liver extract.

OTHER FUNCTIONS OF MANGANESE IN POULTRY: In addition to its importance in the prevention of perosis, manganese has been found essential for the normal bone develop-

ment of the embryonic chick. Hens fed a perosis-producing diet lay eggs of low hatchability, with a high proportion of embryos having short thickened legs and wings and globular heads. This condition is known as chondrodystrophy. Its relation to manganese starvation has been pointed out by Lyons and Insko who showed that the deformed embryos contained less manganese than the normal ones and further, that normal embryonic development could be secured by feeding manganese to the mother hen. They found also that injection of manganese (0.03 mg.) directly into the eggs is equally effective as feeding manganese to the mother hen.—*Borden's Review of Nutrition Research.*

Poultry Rations

By H. L. KEMPSTER, Missouri College of Agriculture

LAYING RATIONS.—Corn—In Missouri yellow corn should make up about two-thirds of the grain feed. Yellow corn is an excellent source of vitamin A, and without yellow corn the ration should contain clover or alfalfa hay. Green corn, moldy or musty feeds should never be fed.

Wheat.—The one of the most popular poultry feeds, wheat is usually more expensive than corn and has little if any additional feeding value. If wheat costs more per pound than corn its use is questionable. Where wheat is used, better results will be obtained if it is supplemented with corn rather than being used as the only grain feed.

Oats.—Light oats are undesirable as a poultry feed, yet heavy oats may safely constitute one-third of the grain used. The use of oats should depend on their availability, quality and price.

Barley.—Where readily available barley may be considered a substitute for oats.

Other Grains.—Cane, milo, and kafir may be used to the extent of one-third to one-half the total grain feed, so long as the remainder is yellow corn. Rye is unpalatable to poultry.

MASH INGREDIENTS.—Wheat Products.—Bran in limited quantities is a valuable ingredient in poultry mashes, since it insures adequate bulk, is high in ash, and contains other valuable nutrients. Middlings, frequently called shorts or shipstuff, is a less bulky feed than bran, and its nutrients are more digestible. It should be mixed with bran, since a mash too high in middlings is pasty. It may constitute



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from one-fourth to one-third of the total mash. It should not be confused with reground bran. Ground wheat, if available as a cost comparing favorably with that of mill feeds, may be used as a substitute for bran and shorts. To avoid pastiness it should be supplemented with enough bran to make a mixture of about the same mechanical nature as the standard mixture of bran and shorts.

Corn Meal.—Corn meal is a very valuable mash ingredient, usually comprising one-fifth to one-fourth of the total mash, but must be handled with discretion. Unless mixed with bulky material it may heat and become moldy.

Ground Oats.—Heavy oats, ground, are an excellent poultry feed and may be used as a substitute for middlings. Light oats are of little value and may cause digestive disorders.

Alfalfa Meal.—Alfalfa meal is frequently used in poultry mashes. Pea green alfalfa leaf meal is preferable to ground alfalfa hay, since the latter runs much higher in fibre. Well cured alfalfa and clover hay, being excellent sources of vitamins A, and G are frequently kept in racks before the hens during the winter.

Salt.—Salt should constitute 1 per cent of the total mash.

Meat Scrap.—Meat scrap is a by-product from the packing house. It contains 50 to 60 per cent protein. It is best fed mixed in the mash, usually using 1 pound meat scrap to each 4 pounds of other ingredients. Tankage is not recommended for poultry feeding.

Fish Meal.—The average fish meal has about the same composition and feeding value as meat scrap.

Milk Products.—The use of milk as the animal protein in poultry rations increases both the number and size of eggs laid and improves their hatchability. Liquid skim milk and buttermilk have about the same feeding value and may be used as substitutes for meat scrap or tankage, the daily allowance being 3.5 to 4 gallons for 100 hens. Dried buttermilk and skim milk are lower in protein than meat scraps and are more expensive. One pound of the dried milk is equivalent to 10 of the liquid or 3 of the condensed.

Protein Concentrates of Vegetable Origin.—At the Missouri Station, soybean oil meal when supplemented with bone meal has been successfully substituted for meat scrap in rations for laying hens. A more practical plan is to use a combination of soybean oil meal and meat scrap. If soybean oil meal and meat scrap are used in equal amounts as the protein concentrate it is not necessary to add additional mineral in the form of bonemeal. Several sources of protein of good quality are desirable and 20 per cent of the total protein should come from animal source.

Difficult to Conform to Labeling Requirements

The problem of obtaining conformity to the labeling requirements of the Agricultural Code is directly affected by the feed supply situation. Periods of transition in which there are changes from former sources of nutrients to new ones are particularly trying to both manufacturer and feed control official. The past year has been a difficult one for the feed industry, with shortages of protein concentrates and even grains, especially corn. It has been necessary for most to reformulate their mixtures, adjusting them to available materials and incorporating the suggestions of various advisory groups interested in effectively utilizing and distributing our scarce supplies.

Changes in formulas mean changes in labels. A widespread and heavy demand for new labels was suddenly created which could not be met immediately. Due to the delay in receiving tags, there were several short-lived instances of mislabeling. This situation prevailed during the early part of the year and generally caused a decrease in conformity of approximately ten per cent.

Study of the violations noted on reports of

inspection and analysis indicates that conformity to labeling requirements has during the past four months returned to and stabilized at a point near normal. Except for the possibility of a new crisis, we expect that we shall be able to maintain this condition.—W. J. Cecil, director California Department of Agriculture.

Limitation of Livestock Numbers

This adjustment of livestock numbers to feed supplies takes into account the relative wartime need of various products. Feed is the limiting factor. Unlimited production in any category will curtail production of the other items.

Feed supplies needed to meet all 1944 livestock goals, including eggs and poultry amount to 140,700,000 tons. This is only slightly less than the overall feed supply anticipated for 1944. Of the required quantity, the poultry industry will need about 27,900,000 tons of feed, of which 17,600,000 tons will be required for egg production alone. This latter need would be greatly increased for example, if egg production in 1944 were to include the potential production of an 8 to 10 per cent greater number of layers now existing on farms.

Thus the first step, government and industry officials said, calls for voluntary action to cull laying hens during January. Culling is considered as necessary in the major feed producing areas, as it is in the feed deficit areas, since it will leave the producers with more efficient laying flocks capable of producing a greater number of eggs per hens and per pound of feed. Adjustment sought in farm-raised chickens and in broilers is expected to be carried on throughout 1944 and will help divert a part of available feed not only to egg production, but for other livestock.

Since the 1943 poultry marketing season has about passed its peak, a temporary increase in poultry receipts during the next few weeks is not expected to hamper processors. Consumers would benefit by the fact that at least a part of the supply thus derived would move into storage against the off-season of poultry marketing later in the spring. At the same time, it is believed that the movement would not be great enough to prevent producers from obtaining farm prices equitable to existing ceilings for the different live grades.

ADJUSTING LIVESTOCK NUMBERS.—The required adjustment of livestock numbers to feed supply has already begun for hogs. These are now being marketed, at present, at a rate which is taxing the facilities of packing plants. The average weight of hogs marketed during the past few weeks shows nearly a 20-pound decline and is now down to normal. Effect of the program, so far as beef cattle are concerned, is expected to become evident later through the marketing of more cattle in the short-fed category. The joint statement follows:

GOALS FOR 1944.—Greatly increased production of poultry and eggs in the past three years is direct evidence of the whole-hearted co-operation of the nation's poultry industry in the war effort. The industry has met and exceeded wartime goals each year. It has established new all-time records in production despite many handicaps.

At the beginning of the war, the problem of producing meat, milk and eggs was to obtain the greatest production to meet current requirements and to prepare for emergency needs.


Today we have the same problem of providing enough food. There is, however, this difference—in 1944 we must maintain essential production of poultry, meat and eggs with a less abundant feed supply.

The 1944 goals call for 102 per cent of the eggs produced in 1943, 96 per cent of the farm-raised chickens, 84 per cent of the broilers, and 97 per cent of the turkeys.

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Hog Production to Decline

Hog production in the U. S. will decline in 1944 after having reached an all-time peak in 1943. The indicated number of sows to farrow in the spring season of 1944 is 16 per cent below the record number farrowed in 1943. The tendency to decline began in the last half of this year when fall farrowings were substantially below the number indicated in the June pig report. Compared with the indicated increase of 25 per cent in June, the actual increase in fall farrowings was only 12 per cent. —U.S.D.A.

Feeding of Market Hogs

Pastures such as alfalfa, red clover or Dwarf Essex rape increase the rate of gain and cut feed costs.

Tankage added to a ration of corn and pasture will save 2.75 to 3 pounds of corn for every pound of tankage fed.

Skimmilk should be fed at the rate of 3 or 4 pounds per pig daily, to balance corn for hogs on pasture.

Plant proteins fed with animal proteins and corn reduce feed costs.

PROTEIN SUPPLEMENTS IN DRY LOT.—The trio mixture (tankage 50%, linseed meal or soybean oil meal 25%, alfalfa meal 25%) in one part of a self-feeder with shelled corn in another part of the self-feeder makes an excellent ration. Modifications of the trio mixture may be necessary under war time conditions.

Skimmilk is superior to tankage. Both these feeds give better results when supplemented with linseed meal or soybean oil meal and alfalfa meal.

Whey is a very good protein supplement especially for older hogs. For pigs some other protein supplement should be added to make the ration more complete.

Dried skimmilk, dried buttermilk and semi-solid or condensed buttermilk are excellent feeds for growing pigs but are too expensive to use for economical pork production with price relationships that have existed.

Soybean oil meal that does not have a "beany" or unpalatable flavor may be used economically in hog rations.

COMPARISON OF CARBOHYDRATE FEEDS.—Corn is worth more per pound for pig feeding than any other cereal except wheat. Corn alone is not a satisfactory feed for market hogs.

Corn need not be ground unless it becomes very dry and hard. Grinding medium fine so that the product feels gritty rather than mealy or floury, will give the best results.

Wheat is worth about the same as shelled corn for pigs, and has the advantage of furnishing 35 per cent more protein.

Barley is widely used in some sections. Ground barley is worth about 93% as much as shelled corn.

Barley should always be ground for hogs. The degree of fineness to which it is ground does not affect the rate of gain and feed required for a unit of gain. Fine grinding is not economical.

Oats usually are worth more for other livestock, such as horses, dairy cattle, or brood sows, than they are for fattening hogs.

Rye should constitute not more than about one-third of the ration.

Hominy feed is worth 93 to 97% as much as well-cured corn.

Molasses is not an economical feed if it sells at more than half the price of corn.

FIBROUS FEED in rations of pigs in moderate amounts and if finely ground has little effect on the rate and economy of gains. Ground alfalfa hay has a high value in dry-lot rations.

Salt should always be supplied to hogs.

Ground limestone with at times small proportions of bone meal are about the only other minerals needed when rations are balanced with plant proteins.—Wisconsin Bulletin 454.

Tankage of Less Value Than in Former Years

By W. L. ROBISON of Ohio Experiment Station

In nine dry-lot trials, which were conducted at the Ohio Experiment Station, from 1916 to 1920, pigs carried from 57 to 206 pounds in weight and fed corn and tankage or corn, tankage, and minerals gained 1.30 pounds daily a head and required 389 pounds of feed per 100 pounds of gain produced. In 16 other dry-lot trials, which were conducted from 1922 to 1928, pigs carried from 50 to 201 pounds in weight and fed corn and tankage or corn, tankage, and minerals gained 1.02 pounds daily a head and required 410 pounds of feed per 100 pounds of gain produced.

These data support the belief that much of the more recently manufactured tankage has a lower nutritive value than did the tankage manufactured a number of years ago. Since it is known that the internal organs are relatively rich in vitamins, more liver and "fancy-meats" than formerly are now used for human consumption. Materials of the same kind not used for human consumption command a higher price in dog foods than are secured for them in tankage. A smaller percentage of them in tankage would be expected to lower its supplemental value. Perhaps improvement in rendering equipment and methods which enable the removing of a larger amount of fat is also a factor which has a tendency to cause tankage to show a lower feeding value than formerly. The fifteenth edition of Henry and Morrison's *Feeds and Feeding* published in 1915 gives the average fat content of 55 to 60 per cent protein tankage as 13.0 per cent. In the twentieth edition, published in 1936, the average amount of fat in 60 per cent protein tankage is given as 8.8 and that in 55 per cent protein tankage, as 10.1 per cent.

Since there is danger of producing soft pork if the ration contains more than 4.5 per cent of such fats, adding much softening fat to the ration is not advisable even when it is economical. Nevertheless, it is sometimes possible to take advantage of the favorable effect of a liberal amount of fat in the ration. The tankage from small packing plants is often relatively high in fat. If available, a high-fat tankage would raise the fat content of the ration without resulting in soft pork. This would probably

also be true of other feeds containing a solid rather than a liquid fat.

More Lambs Being Fed

Shipments of feeder lambs into the 11 corn belt states in November this year exceeded the record November shipments of last year. The number inspected thru stockyard markets was the largest for the month in over 20 years. The total movement into 8 states, was 558,000 compared with 465,000 last year.

For the 5 months, July thru November, the total into these 8 states, which do not include, Missouri, South Dakota or Kansas, was 3,026,000 head compared with 2,916,000 a year ago. —U.S.D.A.

New Price on Cottonseed Cake

The OPA has revised M.P.R. 444 effective Jan. 10 governing cottonseed oil meal, cake, sized cake and pellets, cottonseed hulls and hull bran and whole pressed cottonseed.

The only substantial price change from the previously amended regulation was the establishment of specific prices for whole pressed cake and meal at \$7 a ton under the price set for regular meal. This new price applied to all levels of distribution.

Sales by growers, truckers and persons not specifically named in the regulation also are spelled out as being at no higher prices than the maximum processor price from whom the products are obtained.

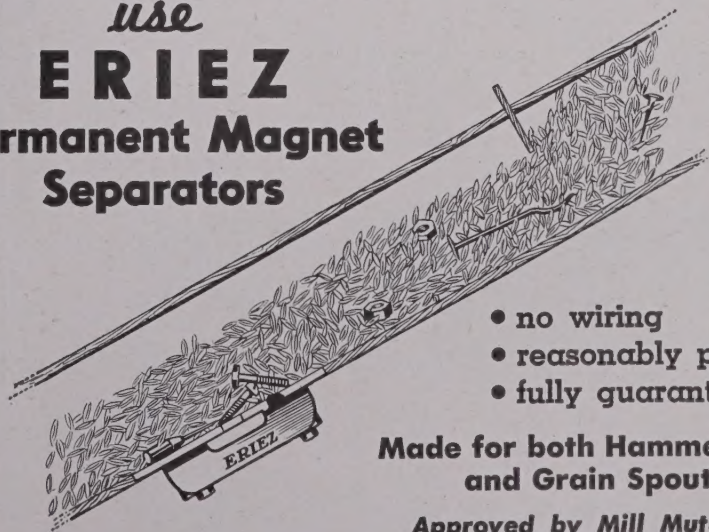
No change is made in the markup allowed processors for carload or less than carload sales, except that processors are allowed an additional 75c markup for hulls in sacks.

A minor change in jobbers' markups reduces to 75c the markup in less than carload sales and allows the same markup of 75c for carload sales.

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Digestibility of Feeds

If there is a supplementary relationship between the basal ration and the supplement, the resulting distortion of the nutritive values of the supplementary food is magnified by the extent to which the basal ration exceeds the supplement, or is minimized by the extent to which the supplement exceeds the basal ration in quantity; and this principle is true not only in relation to nutritive supplementation but also to the errors in the work involved.

Efforts have been made to devise a method of prorating of the associative effects of feeding stuff combinations, but this seems to be an impracticable objective. There is no scientific means for prorating the nutritive values of a ration among its components.

A study was made of the digestible nutrients and the metabolizable energy of a group of practical feeding stuffs for cattle.

Determinations of digestibility covered the usually determined proximate constituents, and in addition lignin and cellulose.

Metabolizable energy was derived by two methods of computation, (1) by subtraction from the food energy of the energy of the feces, the urine (corrected for non-metabolizable body gain), and the methane produced (computed by formula), and (2) by the use of the factors of Axelsson for computing the metabolizable energy of the different classes of digestible nutrients.

The method of Axelsson provided an easy and generally satisfactory method of deriving metabolizable energy values; but his factor for the ether extract of roughages was found to be too high to apply to the low-carbon, low-energy, ether-soluble organic acids of silages. A factor is therefore proposed for the ether extract of silages, this factor being empirically derived as that required to bring into agreement the results computed by the method of Axelsson with those determined wholly by direct experimentation.

The differences between metabolizable energy

values computed by the subtraction and the factorial methods were probably within the limits of experimental error.

Timothy hay was found richer than alfalfa hay in all digestible nutrients except protein and also richer in metabolizable energy.

The digestible nutrient and the metabolizable energy values of corn were one-fourth higher, as fed with alfalfa hay than as fed with timothy hay—if the entire supplementing effect of the combination is assigned to the corn.

The ranges of variation in the average digestible nutrient values of corn as determined by the associative effects of the corn and different basal rations were—in total digestible nutrients, 72.08 to 89.89 per cent; crude protein, 4.27 to 7.28 per cent; ether extract, 3.20 to 4.08 per cent; crude fiber, a negative value to 1.56 per cent; and gross energy, 3033 to 3867 calories per kilogram of dry matter.

The metabolizable energy value of corn when added to a mixed basal ration containing corn was materially less than when fed with alfalfa hay.

It is concluded that combinations of feeding stuffs affect apparent digestibility, not directly, but through the agency of alimentary micro-organisms which grow at the expense of food nutrients and are then digested by the animal. Thus, the effects of food combination on apparent digestibility come to possess true nutritive significance.

Alfalfa-phosphoric acid silage and alfalfa-molasses silage contained somewhat more than one-third as much total digestible nutrient, on the fresh basis, as did alfalfa hay.

On the dry basis, alfalfa silages were of essentially the same gross energy value as alfalfa hay but were of materially higher digestible and metabolizable energy values.

The addition of pulverized limestone to alfalfa-phosphoric acid silage increased its digestible nutrients and metabolizable energy to slight extents probably within the limits of experimental error.—Bull. 452, Penn. Agr. Exp. Station.

Fat Content of Milk Increased by Vitamin Feeding

Vitamin feeding experiments were performed on 10 cows. The fat content of the milk was estimated by the Gerber method (Ger. pat. 646,655). Feeding brewers' yeast, as well as the combined feeding of vitamins B-1 and B-2, raised the fat content by about 25% (abs. increase 0.9-1.5%); the increase lasted for several days.

In the summer the fat content of the milk was not affected by feeding lactoflavin alone (6 mg. daily) or aneurine alone (50 mg. daily).

In the winter the feeding of 0.2 g. aneurine and 0.02 g. lactoflavin raised the fat content by 13%.—W. von Lucadou.

Protein Meal Distribution

Des Moines, Ia.—The State Feed Advisory Committee Jan. 12 allocated sixty cars of linseed oil meal and ninety cars of soybean oil meal to the various counties in this state. The county feed advisory committee of each county will distribute to feed mixers and dealers in their county, the meal that has been allotted to them. This allocation is from the January allotment of the 20% set aside order of the War Food Administration to the processors of oil seed meal.

The processors have already been ordered to set aside another 20% for February distribution. Mixers and dealers in each county who are unable to get their legal quota (one-half the total proteins used in 1942-1943) thru regular channels should contact their county committee.

It is my understanding on each county committee the feed industry will be represented. I would suggest that the feed mixers and dealers in the county get together and select their representative on the County Feed Advisory Committee, so when the official order comes thru the representative will be ready to serve.

The chairman of the committee in each county will be the chairman of the Triple-A Committee. We understand in some counties the feed industry already has a representative on the County Feed Advisory Committee, and I would further suggest that before calling a meeting of the feed industry the chairman of the Triple-A Committee be contacted as to whether or not the feed industry is represented on the committee.—Mark G. Thornburg, sec'y Western Grain and Feed Ass'n.

Calculation of Hay and Grain Requirements

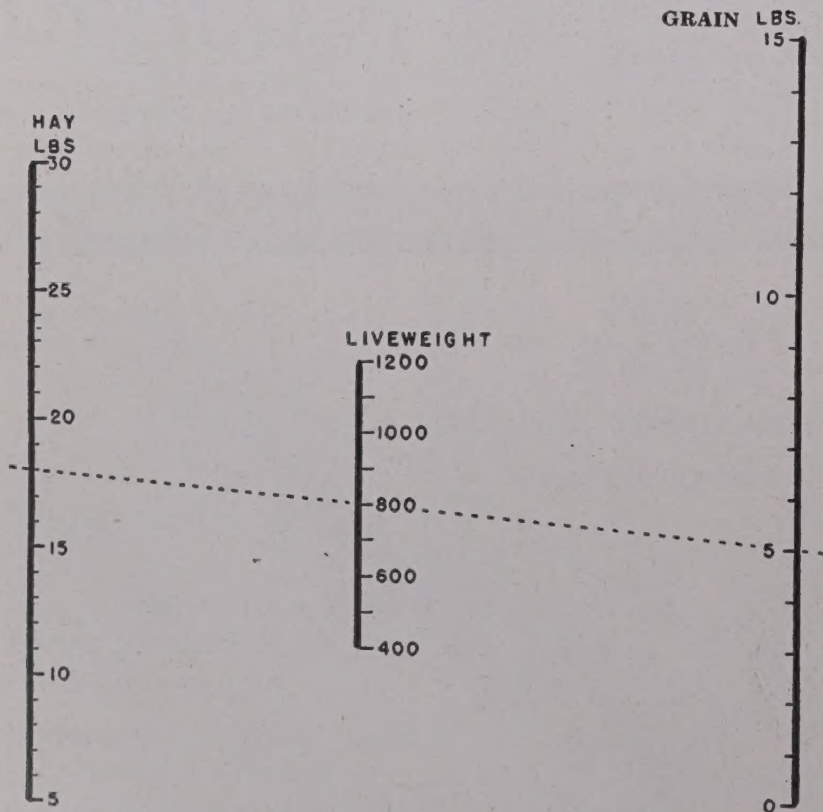
One of the problems that always comes up in beef cattle fattening operations is the relative proportions of grain and of hay to be fed for best results.

When the farmer patron puts this up to the feed merchant the latter can dispose of the question easily and to the satisfaction of the feeder by referring him to the diagram herewith.

The amount of grain fed is usually not far from one per cent of the live weight, that is, 600-pound steers would get 6 pounds of grain daily and 800-pound steers would get 8 pounds daily. If less grain is fed more hay will be eaten, and if more grain is fed less hay will be eaten. Steers ordinarily will not eat much more than the amounts indicated by the chart, but if the hay is of poor quality and some of it is wasted an additional amount should be allowed, according to the University of Nevada Agricultural Experiment Station.

The chart is based on the results obtained during the four years of experimental feeding of first-, second-, and third-crop hay. It solves the equation $(.516 \times \text{hay}) + (.78 \times \text{grain}) = 3 + (.0127 \times \text{live weight})$.

The chart should be useful in making estimates of the amount of hay and grain required to carry cattle thru the fattening period.



By laying a ruler or any straightedge across the point in the center scale representing the average live weight of the cattle in a herd, the amount of hay and grain required is read on the two outside scales. For instance, if 5 pounds of grain is fed per day to 800-pound steers they will require 18 pounds of hay, or if they are fed 8 pounds of grain they will require a little more than 13 pounds of hay per day.

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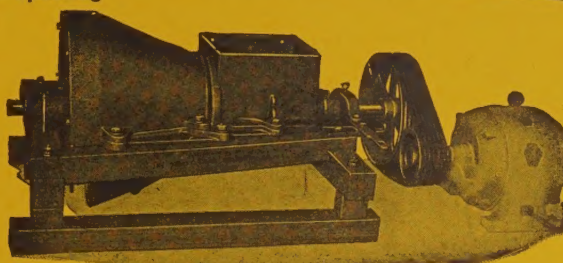
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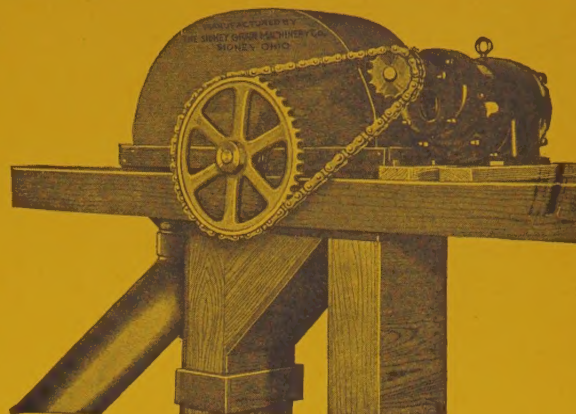
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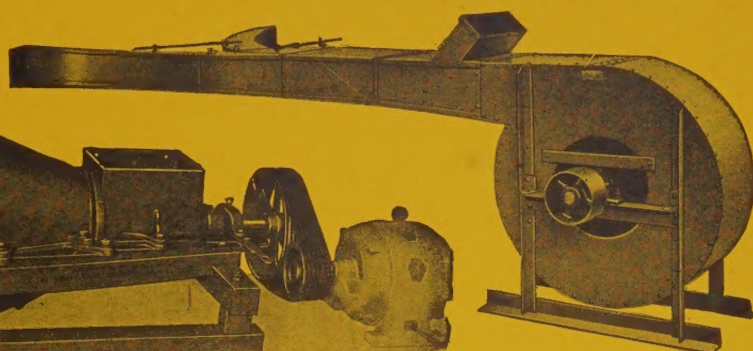
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Receiving and Stock Book is arranged to keep each kind of grain in separate column so each day's receipts may be easily totaled. It contains 200 pages linen ledger paper size $9\frac{1}{4} \times 13$ inches, ruled for records of 4,000 loads. Well bound in black cloth and keratol back and corners. Shipping weight, $2\frac{1}{4}$ lbs. Order Form 321. Price \$2.75, plus postage.

Grain Receiving Ledger has 200 pages linen ledger paper and 28-page index, $8\frac{1}{2} \times 13\frac{1}{4}$ inches, numbered and ruled for 44 entries. Well bound in pebble cloth with keratol back and corners. Weight, 3 lbs. Order Form 43. Price, \$3.35, plus postage.

Grain Scale Book is designed to assign separate pages to each farmer and their names can be indexed so their accounts can be quickly located. It contains 252 numbered pages and 28-page index, of high grade linen ledger paper $10\frac{1}{2} \times 15\frac{1}{2}$ inches. Each page will accommodate 41 wagonloads. Well bound with heavy board covers with cloth sides and keratol back and corners. Weight, $4\frac{1}{2}$ lbs. Order Form 23. Price \$4.50, plus postage.

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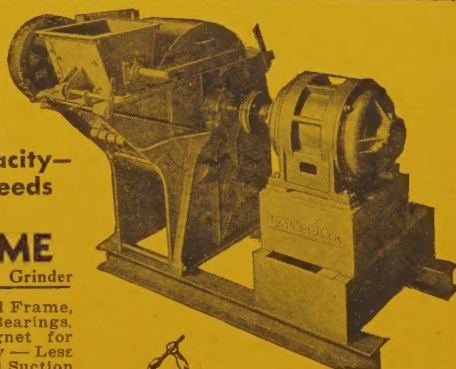
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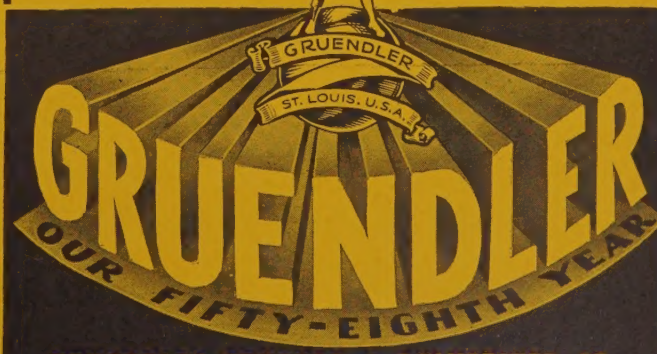
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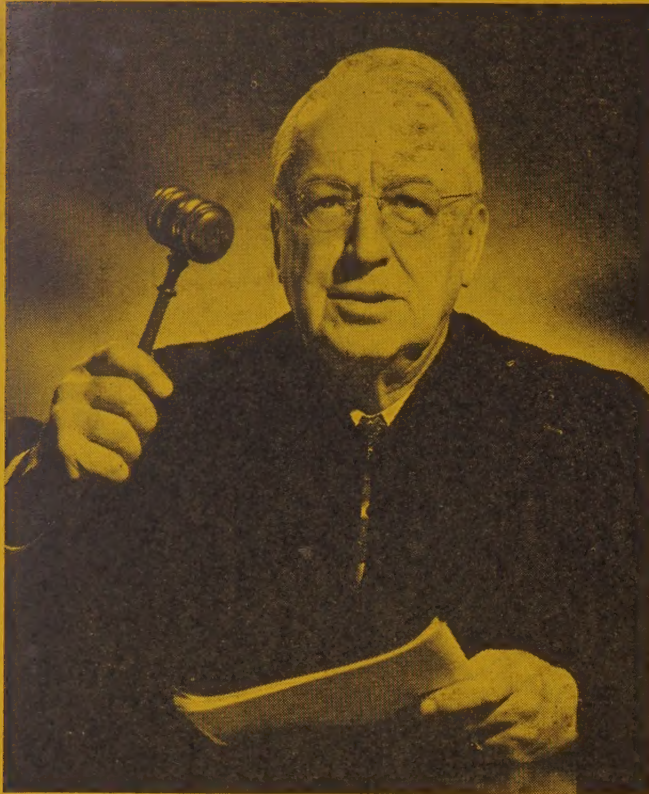
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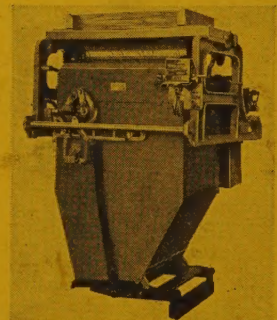
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